

AUSTRALIA

Country profile and trade aspects

Table of Contents

I Overview.....	3
II Economic History.....	3
III The Modern Economy: Macroeconomic Indicators.....	3
IV Trade Policy	4
V Trade Analysis.....	5
1. Australia’s Imports and Exports.....	5
2. Export Trade Intensity Index.....	8
3. Trade Complementarity Index.....	10
4. RCA and RCII.....	14
5. Export Concentration	18
6. Intra-Industry Trade.....	19
7. Export Similarity.....	23
VI Resources.....	24
VII Appendix.....	25
A. Data on Country Profile	25
B. Commodities requiring product-specific export-promotion policies	26
C. Commodities requiring market-specific export-promotion policies	28
D. Trade Indicators.....	36

Index of Tables

Table 1.1: AUSTRALIA’s Imports of Merchandise in billion US dollars.....	5
Table 1.2: Shares of countries in Australia's Imports of Merchandise	6
Table 1.3: AUSTRALIA’s Exports of Merchandise in billion US dollars.....	6
Table 1.4: Shares of countries in AUSTRALIA’s Exports of Merchandise.....	7
Table 1.5: Shares of top 10 Commodities in AUSTRALIA's Imports of Merchandise.....	7
Table 1.6: Shares of top 10 Commodities in AUSTRALIA's Exports of Merchandise.....	8
Table 2.1: Export Intensity Indices of Countries w.r.t. AUSTRALIA	9
Table 2.2: ITC-HS Chapter-wise Export Intensity Indices for India w.r.t AUSTRALIA in 2020.....	9
Table 3.1: Trade Complementarity Index (including Relative) between India and AUSTRALIA	10
Table 3.2: Trade Complementarity Index (including Relative) between selected countries and AUSTRALIA.....	10
Table 3.3: Composition of India’s Exports and AUSTRALIA’s Imports in 2020 (ITC-HS chapter-wise)	11
Table 3.4: Top Twenty Chapters with highest absolute difference in shares (in Indian exports and AUSTRALIA's imports).....	13
Table 4.1: RCA of Indian exports in 2020 – ITC-HS chapter-wise.....	14
Table 4.2: RCII of AUSTRALIA’s imports in 2020 – ITC-HS chapter-wise.....	15
Table 4.3: RCA of Indian exports to AUSTRALIA in 2020 – ITC-HS chapter-wise.....	16
Table 4.4: RCII of AUSTRALIA’s imports from India in 2020 – ITC-HS chapter-wise.....	17
Table 5.1: Hirschman-Herfindahl Index for India to the World and for India to AUSTRALIA	19
Table 6.1: Grubel-Lloyd Index for India and AUSTRALIA in 2020 – Agricultural and Related Products (Chapters 01-24).....	19
Table 6.2: Grubel-Lloyd Index for India and AUSTRALIA in 2020 – Mineral Products (Chapters 25-27).....	20
Table 6.3: Grubel-Lloyd Index for India and AUSTRALIA in 2020 – Products of Chemical or Allied Industries (Chapters 28-40).....	20

Table 6.4: Grubel-Lloyd Index for India and AUSTRALIA in 2020 – Leather, Wood and Paper (Chapters 41-49).....	21
Table 6.5: Grubel-Lloyd Index for India and AUSTRALIA in 2020 – Textiles, Textile Articles, Footwear and Headgear (Chapters 50-65).....	21
Table 6.6: Grubel-Lloyd Index for India and AUSTRALIA in 2020 – Assorted Group of Items (Chapters 66- 71)	22
Table 6.7: Grubel-Lloyd Index for India and AUSTRALIA in 2020 – Base Metals and Articles of Base Metals (Chapters 72-83).....	22
Table 6.8: Grubel-Lloyd Index for India and AUSTRALIA in 2020 – High-End Manufactured Products, Furniture, Sports Goods and Works of Art (Chapters 84-99).....	22
Table 7.1: Export Similarity Index – India and a few countries.....	23
Table 7.2: Export Similarity Index – AUSTRALIA and a few countries.....	23
Table A: Country Profile — AUSTRALIA.....	25
Table B: Commodities requiring product specific export-promotion policies.....	26
Table C: Commodities requiring market specific export-promotion policies.....	28

I Overview

Australia the smallest continent and one of the largest countries on Earth, lying between the Pacific and Indian Oceans in the Southern Hemisphere. Australia's capital is Canberra, located in the southeast between the larger and more important economic and cultural centres of Sydney and Melbourne. The Australian mainland extends from west to east for nearly 2,500 miles (4,000 km) and from Cape York Peninsula in the northeast to Wilsons Promontory in the southeast for nearly 2,000 miles (3,200 km). To the south, Australian jurisdiction extends a further 310 miles (500 km) to the southern extremity of the island of Tasmania, and in the north it extends to the southern shores of Papua New Guinea. Australia is separated from Indonesia to the northwest by the Timor and Arafura seas, from Papua New Guinea to the northeast by the Coral Sea and the Torres Strait, from the Coral Sea Islands Territory by the Great Barrier Reef, from New Zealand to the southeast by the Tasman Sea, and from Antarctica in the far south by the Indian Ocean. Australia has been called "the Oldest Continent," "the Last of Lands," and "the Last Frontier."

II Recent Economic History

Australia is a highly developed country with a market economy. As of 2021, Australia was the 13th-largest national economy by nominal GDP (Gross Domestic Product), the 18th-largest by PPP-adjusted GDP,[32] and was the 25th-largest goods exporter and 20th-largest goods importer. Australia took the record for the longest run of uninterrupted GDP growth in the developed world ending with the March 2017 financial quarter. It was the 103rd quarter and the 26th year since the country had a technical recession (two consecutive quarters of negative growth). As of June 2021, the country's GDP was estimated at A\$1.98 trillion. The Australian economy is dominated by its service sector, which in 2017 comprised 62.7% of the GDP and employed 78.8% of the labour force. Australia has the tenth-highest total estimated value of natural resources, valued at US\$ 19.98 trillion in 2017. At the height of the mining boom in 2009–10, the total value-added of the mining industry was 8.4% of GDP. Despite the recent decline in the mining sector, the Australian economy had remained resilient and stable and did not experience a recession from 1991 until 2020.

The Australian Securities Exchange in Sydney is the 16th-largest stock exchange in the world in terms of domestic market capitalisation and has one of the largest interest rate derivatives markets in the Asia-Pacific region. Some of Australia's large companies include Commonwealth Bank, BHP, CSL, Westpac, NAB, ANZ, Fortescue Metals Group, Wesfarmers, Macquarie Group, Woolworths Group, Rio Tinto, and Telstra. The currency of Australia and its territories is the Australian dollar, which it shares with several Pacific nation states. Australia's economy is strongly intertwined with the countries of East and Southeast Asia, also known as ASEAN Plus Three (APT), accounting for about 64% of its exports in 2016. China in particular is Australia's main export and import partner by a wide margin. Australia is a member of the APEC, G20, OECD and WTO. The country has also entered into free trade agreements with ASEAN, Canada, Chile, China, South Korea, Malaysia, New Zealand, Peru, Japan, Singapore, Thailand and the United States. It has also become a member of RCEP. The ANZCERTA agreement with New Zealand has greatly increased integration with the economy of New Zealand and in 2011 there was a plan to form an Australasian Single Economic Market by 2015. It has signed a major bilateral trade agreement with India very recently.

III The Modern Economy: Macroeconomic Indicators

Australia's per-capita GDP is higher than that of the UK, Canada, Germany and France in terms of purchasing power parity. Per Capita GDP (PPP) Australia is ranked 18th in the world (CIA World Fact book 2016). The country was ranked eighth in the United Nations 2019 Human Development Index and sixth in *The Economist* worldwide quality-of-life index 2005. In 2014, using constant exchange rates, Australia's wealth had grown by 4.4% annually on average after the financial crisis of 2007–2008, compared with a 9.2% rate over 2000–2007. Australia's sovereign credit rating is "AAA" for all three major rating agencies, higher than the United States of America. The emphasis on exporting commodities rather than manufactures underpinned a significant increase in Australia's terms of trade during the rise in commodity prices since

2000. However, due to a colonial heritage a lot of companies operating in Australia are foreign-owned and as a result, Australia has had persistent current account deficits for over 60 years despite periods of positive net merchandise exports; given the net income outlay between Australia and the rest of the world is always negative. The current account deficit totalled AUD\$44.5 billion in 2016 or 2.6% of GDP.

Inflation has typically been between 2 and 3% and the pre-GFC cash rate typically ranged between 5 and 7%. However, partly in response to the end of the mining boom the cash rate has recently been steadily falling, dropping from 4.75% in October 2011 to 1.5% in Aug 2016, then to 1.25% in June 2019 and 1.0% in July 2019. The service sector of the economy, including tourism, education and financial services, constitutes 69% of GDP. Australian National University in Canberra also provides a probabilistic interest-rate-setting project for the Australian economy, which is compiled by shadow board members from the ANU academic staff. Rich in natural resources, Australia is a major exporter of agricultural products, particularly wheat and wool, minerals such as iron ore and gold, and energy in the forms of liquefied natural gas and coal. Although agriculture and natural resources constitute only 3% and 5% of GDP, respectively, they contribute substantially to Australia's export composition. Australia's largest export markets are Japan, China, South Korea, India and the US.

At the turn of the current century, Australia experienced a significant mining boom. The mining sector's contribution to overall GDP grew from around 4.5% in 1993–94, to almost 8% in 2006–07. The services sector also grew considerably, with property and business services in particular growing from 10% to 14.5% of GDP over the same period, making it the largest single component of GDP (in sectoral terms). This growth has largely been at the expense of the manufacturing sector, which in 2006–07 accounted for around 12% of GDP. In 2018 Australia became the country with the largest median wealth per adult,^[82] but slipped back to second highest after Switzerland in 2020.^[83] Australia's total wealth was estimated to be AUD\$10.9 trillion as of September 2019.

IV Trade Policy

In the second half of the 20th century, Australian trade shifted away from Europe and North America to Japan and other East Asian markets. Regional franchising businesses, now a \$128 billion sector, have been operating co-branded sites overseas for years with new investors coming from Western Australia and Queensland. In the late 19th century, Australia's economic strength relative to the rest of the world was reflected in its GDP. In 1870, Australia had the highest GDP per capita in the world due to economic growth fuelled by its natural resources. However, as Australia's population grew rapidly over the 20th century, its GDP per capita dropped relative to countries such as the US and Norway. However, the Australian economy has been performing nominally better than other economies of the OECD and has supported economic growth for over 20 consecutive years. According to the Reserve Bank of Australia, Australian per capita GDP growth is higher than that of New Zealand, US, Canada and The Netherlands. The past performance of the Australian economy has been heavily influenced by US, Japanese and Chinese economic growth.

V Australia's balance of payments: -In trade terms, the Australian economy has had persistently large current account deficits (CADs) for more than 50 years. One of the factors that undermines balance of payments is Australia's export base, making it highly vulnerable to the volatility in the prices of commodity goods. In addition, due to a colonial heritage a lot of companies operating in Australia are foreign-owned and, as a result, Australia's net income outlay between it and the rest of the world is always negative; this result in persistent current account deficits even when there is a positive export. Dependent upon commodities, the Australian government endeavoured to redevelop the Australian manufacturing sector. This initiative, also known as Micro Economic Reforms, helped Australian manufacturing to grow from 10.1% in 1983–1984 to 17.8% in 2003–2004. There are other factors that have contributed to the extremely high current account deficit in Australia such as lack of international competitiveness.

However, as Australia's CAD is almost entirely generated by the private sector, as outlined in Professor John Pitchford's 'Consenting Adults Thesis' in the early 1990s, there is an argument that the CAD is not a significant issue. Historically, Australia has relied on overseas capital to fill the gap between domestic savings and investment, and many of these investment opportunities could not have been pursued if Australia

did not have access to foreign savings. This suggests that Australia's apparently low savings level and CAD are not necessarily a significant problem. As long as the investment that is being funded by overseas capital inflow generates sufficient returns to pay for the servicing costs in the future, the increase in foreign liabilities can be viewed as sustainable in the longer term.

VI Trade Analysis

While presenting the overview of Australia's international trade data, this section will particularly focus on Australia's merchandise trade & the bilateral trade between Australia and India in details.

I. Australia's Imports and Exports

Tables 1.1 to 1.4 show the list of Australia's top 20 source countries and destination countries for merchandise trade. From tables 1.1 and 1.2, it is manifest that China, USA and Japan, are the top 3 countries accounting for 22% in Australia's imports of merchandise in 2021. India accounts for 6.37% in Australia's goods' imports in 2021, with an average hovering around 21.88% from 2017 to 2021.

Table 1.1: Australia's Imports of Merchandise in billion US dollars

Partner Country	2017	2018	2019	2020	2021	Grand Total
World	228.43	235.53	221.48	211.97	261.59	1159.00
China	49.97	57.70	56.95	61.05	72.86	298.53
USA	23.61	24.67	26.23	25.14	26.61	126.26
Japan	16.52	17.35	15.47	12.73	15.78	77.86
Thailand	11.07	11.52	10.67	10.22	11.57	55.05
Germany	10.77	11.62	10.53	9.82	11.19	53.93
Rep. of Korea	15.89	10.18	8.64	6.55	9.48	50.74
Malaysia	8.63	9.91	7.80	6.91	10.31	43.57
Singapore	6.38	8.82	7.49	5.68	9.78	38.15
Areas, nes	15.07	4.44	3.23	2.63	7.24	32.61
New Zealand	6.06	6.06	5.56	5.01	5.20	27.89
United Kingdom	5.43	5.61	5.21	5.03	5.59	26.88
Italy	4.92	5.50	5.17	4.89	5.89	26.37
Viet Nam	3.94	4.68	4.30	4.49	5.37	22.79
India	4.01	4.24	3.36	3.89	6.37	21.88
France	3.79	4.09	4.36	4.19	4.63	21.07
Other Asia, nes	2.95	3.63	3.75	3.56	4.60	18.49
Indonesia	3.21	3.85	3.62	3.39	3.76	17.83
Switzerland	2.36	2.76	2.50	2.44	2.75	12.81
Papua New Guinea	2.58	2.70	2.87	2.40	1.71	12.27
Mexico	2.22	2.41	2.20	2.13	2.71	11.66
Others	29.02	33.79	31.57	29.80	38.20	162.37
Total	456.86	471.07	442.96	423.95	523.17	2318.01

Source: UN Comtrade database

Table 1.2: Shares (%) of countries in Australia's Imports of Merchandise

Partner Country	2017	2018	2019	2020	2021	Share (%)
China	10.94	12.25	12.86	14.40	13.93	12.88
USA	5.17	5.24	5.92	5.93	5.09	5.45
Japan	3.62	3.68	3.49	3.00	3.02	3.36
Thailand	2.42	2.45	2.41	2.41	2.21	2.37
Germany	2.36	2.47	2.38	2.32	2.14	2.33
Rep. of Korea	3.48	2.16	1.95	1.55	1.81	2.19
Malaysia	1.89	2.10	1.76	1.63	1.97	1.88
Singapore	1.40	1.87	1.69	1.34	1.87	1.65

Areas, nes	3.30	0.94	0.73	0.62	1.38	1.41
New Zealand	1.33	1.29	1.26	1.18	0.99	1.20
United Kingdom	1.19	1.19	1.18	1.19	1.07	1.16
Italy	1.08	1.17	1.17	1.15	1.12	1.14
Viet Nam	0.86	0.99	0.97	1.06	1.03	0.98
India	0.88	0.90	0.76	0.92	1.22	0.94
France	0.83	0.87	0.98	0.99	0.89	0.91
Other Asia, nes	0.65	0.77	0.85	0.84	0.88	0.80
Indonesia	0.70	0.82	0.82	0.80	0.72	0.77
Switzerland	0.52	0.59	0.56	0.58	0.53	0.55
Papua New Guinea	0.56	0.57	0.65	0.57	0.33	0.53
Mexico	0.49	0.51	0.50	0.50	0.52	0.50
Others	6.35	7.17	7.13	7.03	7.30	7.00
Total	100	100	100	100	100	100

Source: UN Comtrade database

Table 1.3: Australia's Exports of Merchandise in billion US dollars

Partner Country	2017	2018	2019	2020	2021	Grand Total
World	230.54	252.76	266.38	245.05	342.04	1336.75
China	68.47	87.72	103.00	100.09	116.82	476.09
Japan	24.18	41.35	39.45	30.33	30.32	165.64
Areas, nes	32.76	0.01	0.04	0.00	62.01	94.83
Rep. of Korea	13.23	17.74	17.46	15.92	22.59	86.95
India	10.86	12.37	9.70	6.89	13.62	53.44
USA	8.43	9.55	10.17	12.99	11.02	52.17
Other Asia, nes	6.35	7.81	8.84	6.81	9.21	39.02
New Zealand	6.80	7.17	7.08	6.91	8.19	36.15
Singapore	3.62	7.33	8.37	8.54	6.57	34.42
United Kingdom	4.55	3.61	10.57	10.21	3.42	32.36
China, Hong Kong SAR	9.12	7.68	5.17	4.89	4.58	31.44
Indonesia	4.89	4.80	4.10	3.62	7.00	24.40
Malaysia	3.40	5.52	6.18	4.84	4.21	24.16
Viet Nam	3.51	3.71	4.21	4.42	7.01	22.86
Thailand	3.06	4.88	3.06	2.76	4.23	17.99
Netherlands	2.19	2.57	2.17	1.76	2.57	11.25
United Arab Emirates	1.34	2.92	2.53	1.97	1.71	10.45
Germany	1.55	1.66	1.70	2.05	1.75	8.71
Philippines	1.75	1.63	1.92	1.46	1.83	8.59
Papua New Guinea	1.31	1.60	1.75	1.39	1.22	7.28
Others	19.17	21.12	18.90	17.18	22.16	98.55
Total	461.07	505.52	532.75	490.09	684.07	2673.51

Source: UN Comtrade database

Table 1.4: Shares (%) of countries in Australia's Exports of Merchandise

Partner Country	2017	2018	2019	2020	2021	Share (%)
China	14.85	17.35	19.33	20.42	17.08	17.81
Japan	5.24	8.18	7.41	6.19	4.43	6.20
Areas, nes	7.11	0.00	0.01	0.00	9.07	3.55
Rep. of Korea	2.87	3.51	3.28	3.25	3.30	3.25
India	2.35	2.45	1.82	1.41	1.99	2.00
USA	1.83	1.89	1.91	2.65	1.61	1.95
Other Asia, nes	1.38	1.55	1.66	1.39	1.35	1.46
New Zealand	1.48	1.42	1.33	1.41	1.20	1.35

Singapore	0.78	1.45	1.57	1.74	0.96	1.29
United Kingdom	0.99	0.71	1.98	2.08	0.50	1.21
China, Hong Kong SAR	1.98	1.52	0.97	1.00	0.67	1.18
Indonesia	1.06	0.95	0.77	0.74	1.02	0.91
Malaysia	0.74	1.09	1.16	0.99	0.62	0.90
Viet Nam	0.76	0.73	0.79	0.90	1.02	0.85
Thailand	0.66	0.97	0.57	0.56	0.62	0.67
Netherlands	0.47	0.51	0.41	0.36	0.38	0.42
United Arab Emirates	0.29	0.58	0.47	0.40	0.25	0.39
Germany	0.34	0.33	0.32	0.42	0.26	0.33
Philippines	0.38	0.32	0.36	0.30	0.27	0.32
Papua New Guinea	0.28	0.32	0.33	0.28	0.18	0.27
Others	4.16	4.18	3.55	3.51	3.24	3.69
Total	100	100	100	100	100	100

Source: UN Comtrade database

From tables 1.3 and 1.4, it is seen that China, Japan and Areas, nes are the top 3 export destinations of Australia, accounting for about 31% of her exports, As regards, India, the export share is 2% from 2017 to 2021.

Using the ITC HS commodity codes, tables 1.5 and 1.6 highlight the top 10 commodities, at the double digit aggregation, that comprises Australia's imports and exports respectively.

Table 1.5: Shares (%) of top 10 Commodities in Australia's Imports of Merchandise

ITC-HS Chapter	Commodity Name	2017	2018	2019	2020	2021
HS-84	Nuclear reactors, boilers, machinery, etc.	12.99	13.82	14.09	14.93	14.77
HS-87	Vehicles other than railway, tramway	13.31	13.18	12.46	11.71	13.18
HS-85	Electrical, electronic equipment	10.20	11.08	11.24	11.63	10.79
HS-27	Mineral fuels, oils, distillation products, etc.	10.35	13.28	12.58	8.13	10.27
HS-30	Pharmaceutical products	3.51	3.54	3.85	4.28	4.22
HS-90	Optical, photo, technical, medical, etc. apparatus	3.50	3.63	3.75	3.93	3.68
HS-71	Pearls, precious stones, metals, coins, etc.	2.91	2.81	2.99	4.12	2.92
HS-99	Commodities not elsewhere specified	5.16	3.12	2.63	2.09	1.42
HS-39	Plastics and articles thereof	2.66	2.48	2.43	2.73	3.07
HS-94	Furniture, lighting, signs, prefabricated buildings	2.02	2.17	2.17	2.38	2.43
	Others	33.36	30.89	31.80	34.08	33.26
	Total	100	100	100	100	100

Source: UN Comtrade database

Table 1.6: Shares (%) of top 10 Commodities in Australia's Exports of Merchandise

ITC-HS Chapter	Commodity Name	2017	2018	2019	2020	2021
HS-26	Ores, slag and ash	25.75	22.41	28.59	36.12	38.27
HS-27	Mineral fuels, oils, distillation products, etc.	30.32	23.07	18.93	13.91	27.71
HS-99	Commodities not elsewhere specified	2.40	18.03	17.82	15.45	2.44
HS-71	Pearls, precious stones, metals, coins, etc.	6.43	6.10	6.55	7.61	5.46
HS-02	Meat and edible meat offal	3.90	3.98	4.27	4.10	3.24

HS-10	Cereals	2.84	1.81	1.23	1.52	2.87
HS-84	Nuclear reactors, boilers, machinery, etc.	1.99	1.87	1.78	1.76	1.35
HS-76	Aluminium and articles thereof	1.35	1.50	1.21	1.19	1.26
HS-28	Inorganic chemicals, precious metal compound, isotopes	2.67	0.88	0.63	0.38	1.86
HS-85	Electrical, electronic equipment	1.34	1.26	1.31	1.24	1.04
Others		21.01	19.08	17.69	16.71	14.51
Total		100	100	100	100	100

Source: UN Comtrade database

The top 5 imported products constitute ‘Nuclear reactors, boilers, machinery, etc.’ (HS-84), ‘Vehicles other than railway, tramway’HS-87, ‘Electrical, electronic equipment’HS-85, ‘Mineral fuels, oils, distillation products, etc.’HS-27 and ‘Pharmaceutical products’HS-30 (from table 1.5).

On the other hand, the dominant export basket constitutes categories such as ‘Ores, slag and ash’(HS-26), ‘Mineral fuels, oils, distillation products, etc.’(HS-27), ‘Commodities not elsewhere specified’(HS-99), ‘Pearls, precious stones, metals, coins, etc.’(HS-71), ‘Meat and edible meat offal’(HS-02) (from table 1.6).

The following commodities dominate both the export and import baskets in Australia’s international trade.

HS-84 Nuclear reactors, boilers, machinery, etc.

HS-85 Electrical, electronic equipment

HS-27 Mineral fuels, oils, distillation products, etc.

HS-71 Pearls, precious stones, metals, coins, etc.

HS-99 Commodities not elsewhere specified

2. Export Trade Intensity Index

Export Trade Intensity Index (ETII) of a country (here, India) with respect to an importing country (here, Australia) is the share of the exporting country’s merchandise going to that particular importing country divided by the share of world exports going to that importing country. In other words, it is the importance of that importing country as a destination for the exporting country’s merchandise outflow, as compared to the importance that importing country enjoys as a destination of world exports. But algebraically, it is equal to the exporting country’s share in the importer’s market as compared to the importing country’s market share in the world market. Table 2.1, which states the ETII of BRICS countries and USA with respect to Australia, shows that the ETII value is extremely high with respect to China followed by USA, implying stronger trade ties between Australia and China.

Table 2.1: Export Intensity Indices (ETIIs) of BRICS Countries and USA w.r.t. Australia

Countries	2016	2017	2018	2019	2020
India	1.01	1.06	0.99	0.86	1.10
Brazil	0.20	0.17	0.17	0.18	0.18
China	1.58	1.47	1.62	1.76	1.76
South Africa	0.89	0.82	0.78	0.78	0.77
USA	1.31	1.21	1.24	1.38	1.35
Russia	0.02	0.03	0.03	0.03	0.03

Source: UN Comtrade database

Elaborating on the ETII, table 2.2 shows the disaggregated value of this index for India with respect to Australia. The index is calculated for each of the 2-digit ITC HS commodity codes and a higher value, greater than 1, represents that the Indian exports, of those specific chapters, to Australia are relatively performing better than the world averages.

Table 2.2: ITC-HS Chapter-wise Export Intensity Indices for India w.r.t Australia in 2020

TC-HS Chapter	Trade Intensity Index (TII)	TC-HS Chapter	Trade Intensity Index (TII)	TC-HS Chapter	Trade Intensity Index (TII)	TC-HS Chapter	Trade Intensity Index (TII)
43	6.91	73	1.46	52	0.8	66	0.33
11	5.60	85	1.46	37	0.79	22	0.33
27	3.46	41	1.44	34	0.79	67	0.32
12	3.01	33	1.38	32	0.77	81	0.30
10	2.95	65	1.37	39	0.74	79	0.24
51	2.85	94	1.33	49	0.71	26	0.19
53	2.79	70	1.27	91	0.69	18	0.18
95	2.76	28	1.24	80	0.69	88	0.15
75	2.68	58	1.22	84	0.67	17	0.14
44	2.41	30	1.21	46	0.66	60	0.11
42	2.23	86	1.20	59	0.54	93	0.08
82	2.03	55	1.19	48	0.52	24	0.07
19	1.96	62	1.14	36	0.5	16	0.02
20	1.96	83	1.10	76	0.5	99	0.01
56	1.96	71	1.06	23	0.46	89	0.00
38	1.85	40	1.04	92	0.45	47	0.00
57	1.80	45	1.03	87	0.44		
14	1.80	96	1.00	25	0.42		
74	1.68	15	0.99	68	0.38		
13	1.65	72	0.97	29	0.38		
21	1.59	61	0.91	78	0.38		
54	1.58	97	0.89	35	0.34		
50	1.57	90	0.86	31	0.34		
63	1.49	64	0.81	69	0.33		

Source: UN Comtrade database

In Table 2.2, the chapters are arranged in order of magnitude from largest to smallest values of ETII. From the above table, it is clear that there are several chapters which have an index value greater than 1, that is also manifesting in the extremely high value of ETII as discussed earlier (in Table 2.1) between India and Australia (>1).

3. Trade Complementarity Index

The ITC-HS chapters identified in the previous section is only a shortlist, for it narrates half the story. Trade takes place when there is a complementarity of demand and supply, in the present case, between the demand of Australia and the supply of India. The Trade Complementarity Index (TCI) is a measure of this match, and the value of the index between Indian exports and Australia imports in 2020 stood at 0.36, which is less than the chain/average index between Indian exports and world imports at 0.42. Hence, the Relative Trade Complementarity Index is 0.87, meaning that India's exports have less complementarity with Australia imports than with world imports.³

TCI is computed by taking the shares of each commodity (here, at the ITC-HS 6-digit level) in the export basket of India, and then the corresponding shares of these commodities in the import basket of Australia, calculating the absolute value of the difference between the two for each 6-digit level commodity, summing the differences up, dividing the sum by 2, and subtracting what we get from 1. So, the differences in the shares are the major determinants.

Table 3.1: Trade Complementarity Index (including Relative) between India and Australia

	2016	2017	2018	2019	2020
TCI Between India and Australia ⁴	0.37	0.36	0.36	0.38	0.36
TCI Between India ⁵ and World	0.38	0.40	0.41	0.39	0.42
RTCPI ⁶	0.97	0.89	0.87	0.97	0.87

Source: UN Comtrade database

3 See RTCI in Appendix D.

4 Trade Complementarity Index between India and Australia.

5 Trade Complementarity Index between India and World.

6 Relative Trade Complementarity Index between India and Australia.

Table 3.2: Trade Complementarity Index (including Relative) between selected countries (largest exporters to Australia) and Australia in 2020.

Countries	TCI	TCIW	RTCI
China	0.5	0.54	↑ 0.93
Japan	0.36	0.49	0.74
South Korea	0.5	0.55	↑ 0.91
USA	0.53	0.69	0.77
United Kingdom	0.5	0.58	0.86
Singapore	0.34	0.46	0.74
New Zealand	0.31	0.34	↑ 0.90
India	0.36	0.42	0.87
Other Asia, nes	0.27	0.41	0.64
Hong Kong	0.31	0.34	↑ 0.90

Source: UN Comtrade database

When we compare the Relative Trade Complementarity Index (RTCI) between India and Australia to that of other exporting countries and Australia in table 3.2, we see that India's RTCI is better compared to the exporters of China, South Korea, New Zealand and Hong Kong to Australia. The differences at the individual ITC-HS 2-digit level are examined to find out at which products the complementarities lie and where there is a greater match between demand (imports) and supply (exports). The ITC-HS 2-digit code-wise composition of Indian exports and Australia imports is given in table 3.3 below.

Table 3.3: Composition of India's Exports and Australia's Imports in 2020 (ITC-HS chapter-wise)

TC-HS Chapter	India		Australia	
	Exports(Bn \$)	Share of Chapters (\$)	Imports(Bn \$)	Share of Chapters (\$)
HS-01	0.01	0.00	0.12	0.06
HS-02	3.11	1.13	0.57	0.27
HS-03	5.15	1.87	0.74	0.35
HS-04	0.32	0.12	1.11	0.52
HS-05	0.10	0.04	0.08	0.04
HS-06	0.07	0.03	0.10	0.05
HS-07	1.22	0.44	0.29	0.14
HS-08	1.31	0.48	0.92	0.44

HS-09	3.66	1.33	0.70	0.33
HS-10	8.67	3.15	0.42	0.20
HS-11	0.38	0.14	0.16	0.08
HS-12	1.82	0.66	0.33	0.16
HS-13	0.72	0.26	0.12	0.06
HS-14	0.04	0.02	0.01	0.01
HS-15	1.41	0.51	0.60	0.28
HS-16	0.60	0.22	0.70	0.33
HS-17	2.76	1.00	0.31	0.15
HS-18	0.14	0.05	0.70	0.33
HS-19	0.57	0.21	1.67	0.79
HS-20	0.68	0.25	1.07	0.50
HS-21	0.86	0.31	2.32	1.09
HS-22	0.33	0.12	1.95	0.92
HS-23	1.47	0.54	1.03	0.49
HS-24	0.85	0.31	0.63	0.30
HS-25	1.84	0.67	0.51	0.24
HS-26	4.21	1.53	0.58	0.27
HS-27	27.63	10.03	17.23	8.13
HS-28	1.61	0.59	0.77	0.37
HS-29	17.43	6.33	2.41	1.14
HS-30	18.43	6.69	9.07	4.28
HS-31	0.12	0.04	1.69	0.80
HS-32	2.92	1.06	0.77	0.37
HS-33	1.84	0.67	1.99	0.94
HS-34	0.67	0.24	1.02	0.48
HS-35	0.23	0.08	0.31	0.14
HS-36	0.12	0.04	0.16	0.07
HS-37	0.01	0.00	0.07	0.03
HS-38	4.89	1.77	2.52	1.19
HS-39	6.60	2.40	5.80	2.73
HS-40	2.98	1.08	3.32	1.57
HS-41	0.37	0.14	0.03	0.02
HS-42	1.86	0.67	1.22	0.57
HS-43	0.01	0.00	0.02	0.01
HS-44	0.42	0.15	1.62	0.77
HS-45	0.00	0.00	0.03	0.01
HS-46	0.04	0.02	0.04	0.02
HS-47	0.01	0.00	0.19	0.09
HS-48	1.75	0.64	2.02	0.95
HS-49	0.25	0.09	0.64	0.30
HS-50	0.08	0.03	0.00	0.00
HS-51	0.10	0.04	0.04	0.02
HS-52	5.81	2.11	0.07	0.03
HS-53	0.48	0.17	0.02	0.01
HS-54	1.63	0.59	0.24	0.11
HS-55	1.28	0.46	0.10	0.05
HS-56	0.45	0.16	0.27	0.13
HS-57	1.69	0.61	0.39	0.18
HS-58	0.32	0.12	0.04	0.02
HS-59	0.33	0.12	0.21	0.10
HS-60	0.44	0.16	0.08	0.04
HS-61	6.12	2.22	3.10	1.46

HS-62	6.10	2.22	3.49	1.65
HS-63	4.77	1.73	2.88	1.36
HS-64	1.92	0.70	1.50	0.71
HS-65	0.06	0.02	0.21	0.10
HS-66	0.00	0.00	0.03	0.02
HS-67	0.31	0.11	0.08	0.04
HS-68	1.70	0.62	0.80	0.38
HS-69	2.00	0.73	0.80	0.38
HS-70	0.76	0.28	0.75	0.36
HS-71	24.46	8.88	8.73	4.12
HS-72	10.63	3.86	0.79	0.37
HS-73	6.25	2.27	4.51	2.13
HS-74	1.05	0.38	0.72	0.34
HS-75	0.05	0.02	0.06	0.03
HS-76	5.29	1.92	1.89	0.89
HS-78	0.34	0.12	0.01	0.00
HS-79	0.70	0.26	0.06	0.03
HS-80	0.01	0.00	0.01	0.00
HS-81	0.04	0.02	0.07	0.03
HS-82	0.78	0.28	0.94	0.44
HS-83	0.61	0.22	0.92	0.43
HS-84	17.97	6.52	31.64	14.93
HS-85	13.46	4.89	24.64	11.63
HS-86	0.11	0.04	0.86	0.40
HS-87	13.00	4.72	24.81	11.71
HS-88	1.22	0.44	2.48	1.17
HS-89	4.39	1.59	0.49	0.23
HS-90	3.10	1.13	8.33	3.93
HS-91	0.07	0.03	0.47	0.22
HS-92	0.02	0.01	0.17	0.08
HS-93	0.22	0.08	0.26	0.12
HS-94	1.81	0.66	5.04	2.38
HS-95	0.38	0.14	2.82	1.33
HS-96	0.51	0.19	0.91	0.43
HS-97	0.05	0.02	0.11	0.05
HS-99	0.10	0.04	4.43	2.09
Total	275.49	100	211.97	100

Source: UN Comtrade database

Complementarity in respect of a particular commodity group (here, ITC-HS two-digit level code) implies that India's exports of the commodity (to the world) is substantial, and so is Australia's imports of the commodity (from the world). As it is required to identify the sectors (ITC-HS 2-digit chapters) which have contributed most to the low level of complementarity, the absolute difference in shares – between the share in Indian exports and the share in Australia's imports – for each 2-digit code may be computed. Table 3.4 below shows the twenty 2-digit codes which have seen the highest differences. This will be of interest to framers of policy for aligning India's exports to Australia's imports to enhance trade complementarity between the two countries.

Table 3.4: Top Twenty Chapters with highest absolute difference in shares in %
(in Indian exports and Australia's imports in 2020)

ITC-HS Chapter	Commodity Description	Absolute Value of Difference in Shares (%)	Higher Share in
HS-84	Nuclear reactors, boilers, machinery, etc	8.41	Australia Imports
HS-87	Vehicles other than railway, tramway	6.99	Australia Imports
HS-85	Electrical, electronic equipment	6.74	Australia Imports
HS-29	Organic chemicals	5.19	Indian Exports
HS-71	Pearls, precious stones, metals, coins, etc	4.76	Indian Exports
HS-72	Iron and steel	3.49	Indian Exports
HS-10	Cereals	2.95	Indian Exports
HS-90	Optical, photo, technical, medical, etc apparatus	2.81	Australia Imports
HS-30	Pharmaceutical products	2.41	Indian Exports
HS-52	Cotton	2.08	Indian Exports
HS-99	Commodities not elsewhere specified	2.05	Australia Imports
HS-27	Mineral fuels, oils, distillation products, etc	1.90	Indian Exports
HS-94	Furniture, lighting, signs, prefabricated buildings	1.72	Australia Imports
HS-03	Fish, crustaceans, molluscs, aquatic invertebrates nes	1.52	Indian Exports
HS-89	Ships, boats and other floating structures	1.36	Indian Exports
HS-26	Ores, slag and ash	1.25	Indian Exports
HS-95	Toys, games, sports requisites	1.19	Australia Imports
HS-76	Aluminium and articles thereof	1.02	Indian Exports
HS-09	Coffee, tea, mate and spices	1.00	Indian Exports
HS-02	Meat and edible meat offal	0.86	Indian Exports

Source: UN Comtrade database

It is evident from table 3.4 that in case of several high-technology manufactures such as 'Nuclear reactors, boilers, machinery, etc.', (ITC-HS 84), 'Vehicles; other than railway or tramway rolling stock, and parts and accessories thereof', (ITC-HS 87) and 'Electrical, electronic equipment', (ITC-HS 85) the shares in Australia's imports outweigh those in Indian exports.

The commodity groups in case of which shares in Indian exports outstrip those in Australia's imports include items involving 'Organic chemicals', (ITC-HS 29). 'Pearls, precious stones, metals, coins, etc.', (ITC-HS 29), 'Iron and steel' (ITC-HS 72) and 'Cereals' (ITC-HS 10) etc.

4. RCA and RCII

The earlier approach was one way of looking at things. Another way involves the use of information regarding sectors which have a relative importance, in terms of value, in India's exports (relative to the importance in world exports), and which enjoy a similar relative importance in Australia's imports. The first is known as Revealed Comparative Advantage (RCA) and the second Revealed Comparative Import Inclination (RCII). RCA index for a commodity (or commodity group) exported from India is higher than 1 if its importance is more in India's exports than in world exports, and vice versa.

Similarly, RCII index for Australia's imports for a commodity (or commodity group) imported to Australia is higher than 1 if its importance is more in Australia's imports than in world imports, and vice versa. Hence, those sectors – we analyse at the ITC-HS two-digit code level – which have both RCA for India and RCII for Australia higher than 1 are the sectors which India's exports and Australia's imports to an extent more than overall world trends warrant. Hence these are the sectors which are expected to see substantial Indian exports to Australia. Tables 4.1 and 4.2 shows values of RCA for Indian exports and of RCII for Australia's imports for 2020. Those chapters for which the values are above 1 are in red.

Table 4.1: RCA of Indian exports in 2020 – ITC-HS chapter-wise

ITC-HS Chapter	RCA Between Countries	ITC-HS Chapter	RCA Between Countries	ITC-HS Chapter	RCA Between Countries	ITC-HS Chapter	RCA Between Countries
52	8.70	68	2.04	33	0.75	81	0.19
53	8.05	36	1.82	39	0.72	80	0.16
57	7.44	41	1.61	48	0.69	22	0.16
13	5.42	42	1.53	20	0.68	75	0.15
10	4.83	30	1.47	70	0.67	31	0.15
17	4.36	73	1.40	96	0.65	97	0.14
50	4.34	38	1.36	21	0.64	43	0.14
78	3.87	27	1.36	34	0.63	91	0.11
79	3.14	24	1.28	87	0.62	45	0.09
25	3.11	26	1.25	83	0.57	66	0.06
55	2.86	23	1.22	84	0.52	37	0.05
29	2.86	11	1.18	49	0.47	99	0.02
63	2.75	12	1.17	74	0.46	47	0.02
54	2.69	46	1.12	94	0.45		
89	2.45	40	1.10	65	0.43		
14	2.39	64	1.03	35	0.42		
71	2.34	56	0.97	19	0.42		
32	2.31	15	0.96	85	0.32		
72	2.23	60	0.95	90	0.31		
61	2.17	59	0.93	88	0.31		
76	2.17	28	0.92	92	0.22		
69	2.16	93	0.81	18	0.21		
62	2.14	82	0.79	44	0.21		
58	2.12	16	0.76	86	0.20		
67	2.06	51	0.76	95	0.20		

Source: UN Comtrade database

Table 4.2: RCII of Australia's imports in 2020 – ITC-HS chapter-wise

ITC-HS Chapter	RCII	ITC-HS Chapter	RCII	ITC-HS Chapter	RCII	ITC-HS Chapter	RCII
36	3.14	34	1.33	91	0.87	79	0.33
86	2.71	24	1.30	70	0.86	55	0.30
57	2.44	82	1.26	27	0.84	81	0.29

21	2.39	61	1.25	56	0.83	60	0.26
31	2.24	45	1.21	39	0.80	50	0.26
19	1.85	67	1.20	32	0.80	12	0.24
92	1.84	84	1.19	11	0.79	72	0.20
95	1.83	16	1.19	35	0.78	41	0.19
94	1.76	88	1.19	89	0.73	80	0.18
93	1.72	83	1.16	85	0.68	75	0.17
65	1.71	13	1.15	14	0.67	52	0.17
63	1.66	33	1.15	17	0.66	26	0.17
87	1.62	48	1.12	43	0.65	78	0.13
96	1.61	90	1.10	54	0.60		
46	1.58	18	1.09	28	0.53		
69	1.53	30	1.03	53	0.52		
40	1.50	71	1.01	15	0.49		
49	1.49	23	0.99	29	0.45		
20	1.43	44	0.97	97	0.44		
99	1.42	64	0.96	37	0.42		
42	1.42	76	0.93	58	0.41		
68	1.41	66	0.92	74	0.39		
73	1.38	25	0.89	51	0.39		
22	1.37	59	0.88	47	0.34		
62	1.37	38	0.88	10	0.33		

Source: UN Comtrade database

Policymakers' focus should be to zero in on commodity groups for which RCA of Indian exports >1 and RCII of Australia imports >1 as these commodity groups have good potential for bilateral trade between India and Australia with India having a relatively superlative standing in production/supply of these commodities, which then have a larger than average import demand in Australia. These commodities should be the intersection set of ITC-HS chapters with RCA >1 in Table 4.1 and RCII >1 in Table 4.2. These commodities with their associated commodity descriptions are:

- 13 Lac, gums, resins, vegetable saps and extracts nes
- 24 Tobacco and manufactured tobacco substitutes
- 30 Pharmaceutical products
- 36 Explosives, pyrotechnics, matches, pyrophorics, etc.
- 40 Rubber and articles thereof
- 42 Articles of leather, animal gut, harness, travel goods
- 46 Manufactures of plaiting material, basketwork, etc..
- 57 Carpets and other textile floor coverings
- 61 Articles of apparel, accessories, knit or crochet
- 62 Articles of apparel, accessories, not knit or crochet
- 63 Other made textile articles, sets, worn clothing etc.
- 67 Bird skin, feathers, artificial flowers, human hair
- 68 Stone, plaster, cement, asbestos, mica, etc. articles
- 69 Ceramic products
- 71 Pearls, precious stones, metals, coins, etc.
- 73 Articles of iron or steel

Table 4.3: RCA of Indian exports to Australia in 2020 – ITC-HS chapter-wise

ITC-HS Chapter	RCA Between Countries	ITC-HS Chapter	RCA Between Countries	ITC-HS Chapter	RCA Between Countries	ITC-HS Chapter	RCA Between Countries
95	4.70	40	1.36	15	0.54	93	0.11
11	3.67	51	1.34	91	0.53	78	0.10
57	3.63	30	1.22	32	0.52	17	0.09
21	3.39	46	1.15	68	0.50	52	0.09
19	3.05	70	1.12	69	0.46	88	0.09
20	2.85	83	1.11	58	0.45	79	0.06
42	2.52	61	1.04	76	0.44	24	0.04
82	2.50	28	0.97	59	0.43	26	0.03
27	2.34	49	0.97	22	0.43	60	0.03
44	2.28	34	0.96	75	0.42	16	0.02
65	2.26	90	0.89	50	0.41	99	0.01
43	2.12	85	0.89	97	0.39	89	0.00
94	2.10	12	0.83	23	0.38	47	0.00
53	2.09	54	0.82	41	0.34		
63	2.08	14	0.80	72	0.33		
86	1.91	92	0.79	55	0.32		
73	1.78	84	0.76	25	0.31		
13	1.78	71	0.72	67	0.29		
38	1.55	64	0.70	66	0.28		
56	1.55	10	0.69	35	0.27		
45	1.48	87	0.66	18	0.25		
36	1.48	39	0.63	37	0.25		
33	1.47	31	0.61	29	0.20		
62	1.37	74	0.59	80	0.17		
96	1.36	48	0.57	81	0.11		

Source: UN Comtrade database

It can be established that if, for a particular commodity, RCA for India and RCII for Australia are both > 1 , it can be expected that RCII for that commodity in Australia's imports from India will be > 1 . If this is not the case, the reasons thereof need to be investigated, and appropriate policy measures taken. Actually it implies that the importers of Australia are not importing the particular commodity in sufficient amount (in value terms) while importing from India. It is not necessarily that they are averse to buying from India in general, they may very well purchase other commodities from India, but – for some reason – not this particular product. Policies designed to make these products from India attractive to Australia's importers need to be adopted.

Table 4.4: RCII of Australia's imports from India in 2020 – ITC-HS chapter-wise

ITC-HS Chapter	RCII	ITC-HS Chapter	RCII	ITC-HS Chapter	RCII	ITC-HS Chapter	RCII
19	4.44	14	1.20	39	0.54	93	0.27
11	3.98	62	1.13	91	0.52	25	0.24
27	3.76	40	1.12	68	0.52	18	0.24
95	2.71	83	1.11	55	0.50	52	0.19
57	2.60	34	1.09	59	0.48	97	0.13
21	2.50	28	1.05	15	0.47	78	0.12
36	2.20	51	1.05	69	0.45	89	0.08
31	2.04	86	1.03	50	0.45	81	0.07
82	1.82	33	1.02	64	0.44	79	0.06
13	1.77	22	0.94	66	0.43	26	0.04
63	1.76	54	0.91	74	0.43	60	0.03
44	1.74	49	0.89	17	0.43	16	0.02
20	1.73	90	0.87	23	0.43	24	0.02
65	1.70	61	0.84	32	0.42		
47	1.67	85	0.83	37	0.41		
56	1.58	84	0.81	48	0.40		
53	1.47	12	0.76	67	0.36		
99	1.47	71	0.72	75	0.36		
45	1.43	38	0.70	80	0.34		
42	1.43	43	0.70	29	0.34		
73	1.32	70	0.69	76	0.32		
94	1.27	46	0.61	88	0.32		
10	1.23	87	0.60	41	0.31		
30	1.22	58	0.58	72	0.28		
96	1.20	92	0.58	35	0.28		

Source: UN Comtrade database

Delving deeper in tables 4.3 and 4.4, we find that Twenty Seven ITC-HS chapters have both RCA of Indian exports to Australia in 2020 and RCII of Australia's imports from India in 2020 greater than 1. These chapters are:

- 95 Toys, games, sports requisites
- 11 Milling products, malt, starches, inulin, wheat gluten
- 57 Carpets and other textile floor coverings
- 21 Miscellaneous edible preparations
- 19 Cereal, flour, starch, milk preparations and products
- 20 Vegetable, fruit, nut, etc. food preparations
- 42 Articles of leather, animal gut, harness, travel goods
- 82 Tools, implements, cutlery, etc. of base metal
- 27 Mineral fuels, oils, distillation products, etc.
- 44 Wood and articles of wood, wood charcoal
- 65 Headgear and parts thereof
- 94 Furniture, lighting, signs, prefabricated buildings
- 53 Vegetable textile fibres nes, paper yarn, woven fabric
- 63 Other made textile articles, sets, worn clothing etc.

- 86 Railway, tramway locomotives, rolling stock, equipment
- 73 Articles of iron or steel
- 13 Lac, gums, resins, vegetable saps and extracts nes
- 56 Wadding, felt, nonwovens, yarns, twine, cordage, etc.
- 45 Cork and articles of cork
- 36 Explosives, pyrotechnics, matches, pyrophoric, etc.
- 33 Essential oils, perfumes, cosmetics, toiletries
- 62 Articles of apparel, accessories, not knit or crochet
- 96 Miscellaneous manufactured articles
- 40 Rubber and articles thereof
- 51 Wool, animal hair, horsehair yarn and fabric thereof
- 30 Pharmaceutical products
- 83 Miscellaneous articles of base metal

This was a sector-wise analysis, and the policies to be adopted need to address the sector at large. There may be, in a particular chapter, 6-digit commodities which may satisfy the conditions satisfied by the chapter as a whole, and there may many which do not. There may even be occasions wherein no 6-digit commodity of a particular chapter individually satisfies the conditions but the chapter as a whole does. This may be because RCA and RCII of some commodities in India's exports to Australia < 1 (which brings down the RCA and RCII of the chapter as a whole), but their RCAs in case of India's exports (to the whole world) or their RCII in case of Australia's imports (from the whole world) may also be < 1. In case of other commodities of the same chapter, both may be > 1. On the other hand, a chapter as a whole may not satisfy the conditions, but some 6-digit commodities included in it may. So, ITC-HS 6-digit code-wise analysis is more relevant, because the greater granularity permits better focusing of policy measures. The list of chapters may not be consistent with the list of ITC-HS six-digit commodities, because of the reasons mentioned above. The analytical framework elaborated above, with chapters as the basis, was mainly for the purpose of elucidation of the methodology adopted, but also for giving a sector-wise status. But for policy formulation, the analysis with the highest possible granularity is the best option. Hence, it will be most expeditious to consider the ITC-HS six-digit commodities which emerge, as the candidates for the policies mentioned above, when the methodology set out above is employed at the 6-digit level. This list is given in Appendix B

So much for product-specific policies. Market (i.e. destination) specific policies need to be taken, too. If India has a market share in the world, for commodity P (say s), which is greater than India's overall market share (for all commodities) in the world (say t), there is no reason to expect that India's market share for P in Australia, say $g < s$. g can be < s only when, for some reason, Australia imports P, but not sufficiently from India. In such cases, market or destination-specific promotional policies will be needed. The same will be true when Australia's share in India's export of P falls below Australia's share in total world imports of P. When both coincide, there is an even stronger case for adoption of the market-specific promotional policies. Appendix C shows the list of such commodities in case of India's exports to Australia. For commodities appearing in both the lists – in Appendix B and Appendix C, both product-oriented and market-oriented promotional policies are required to be adopted.

5. Export Concentration

The standard measure of concentration of exports over a range of commodities is the Hirschman-Herfindahl Index (HHI), which is the sum of the squares of the shares of the commodities (in terms of value) in the export basket.⁷ The index has been calculated over all ITC-HS six-digit commodities, the highest level of granularity allowed by comparable international data. The index is more meaningful the more granular the data.

In case of Australia's exports to World, table 5.1 shows that the value of the index, between 2016 and 2020, averages around 0.29. It may be noted that the index for India's exports to the world at 0.13 (average).

Table 5.1: Hirschman-Herfindahl Index for India to the World and for Australia to the World

Year	India-World HHI	Australia-World HHI
2016	0.13	0.29
2017	0.13	0.31
2018	0.15	0.33
2019	0.14	0.38
2020	0.12	0.42

Source: UN Comtrade database

6. Intra-Industry Trade

Intra-industry trade is of importance as it can increase and expand markets. The standard indicator is the Index of Intra-industry Trade (IIT). The index can be calculated within individual sectors as well. Intra-industry trade is generally high in case of the manufacturing sector. An increase in IIT may signify a maturing of this sector, and hence, a regular monitoring of this index may be useful.

Intra-industry trade is a common world-wide phenomenon – export and import of the commodities produced by the same industry or sector. The degree to which this occurs is generally measured by the Grubel-Lloyd Index, which is the difference between the exports of the particular sector to a partner country and imports of the products of the same sector from the same partner, divided by the sum of these two, and whole thing obtained subtracted from 1.⁸

In the present case, the Grubel-Lloyd Index values (computed on exports from India to Australia and imports from Australia to India) in Table 6.1 show that, in 2020, in case of agricultural products and processed farm products, intra-industry trade between India and Australia is very low, no commodity satisfies the IIT's condition. That is, the value from ITC HS-01 to HS-24 is not more than 0.7

Table 6.1: Grubel-Lloyd Index for India and Australia in 2020 – Agricultural and Related Products (Chapters 01-24)

ITC-HS Chapter	Commodity Name	Grubel Lloyd Index
HS-01	Live animals	
HS-02	Meat and edible meat offal	
HS-03	Fish, crustaceans, molluscs, aquatic invertebrates nes	
HS-04	Dairy products, eggs, honey, edible animal product nes	
HS-05	Products of animal origin, nes	
HS-06	Live trees, plants, bulbs, roots, cut flowers etc.	
HS-07	Edible vegetables and certain roots and tubers	
HS-08	Edible fruit, nuts, peel of citrus fruit, melons	
HS-09	Coffee, tea, mate and spices	
HS-10	Cereals	0.22
HS-11	Milling products, malt, starches, inulin, wheat gluten	0.51

HS-12	Oil seed, oleagic fruits, grain, seed, fruit, etc., nes	0.33
HS-13	Lac, gums, resins, vegetable saps and extracts nes	0.02
HS-14	Vegetable plaiting materials, vegetable products nes	0.00
HS-15	Animal, vegetable fats and oils, cleavage products, etc.	0.05
HS-16	Meat, fish and seafood food preparations nes	0.00
HS-17	Sugars and sugar confectionery	0.19
HS-18	Cocoa and cocoa preparations	0.25
HS-19	Cereal, flour, starch, milk preparations and products	0.02
HS-20	Vegetable, fruit, nut, etc. food preparations	0.05
HS-21	Miscellaneous edible preparations	0.04
HS-22	Beverages, spirits and vinegar	0.60
HS-23	Residues, wastes of food industry, animal fodder	0.58
HS-24	Tobacco and manufactured tobacco substitutes	0.00

Source: UN Comtrade database

For ores and minerals as is shown in table 6.2, IIT is fairly high degree for HS-25 (Salt, sulphur, earth, stone, plaster, lime and cement).

Table 6.2: Grubel-Lloyd Index for India and Australia in 2020 – Mineral Products (Chapters 25-27)

ITC-HS Chapter	Commodity Name	Grubel Lloyd Index
HS-25	Salt, sulphur, earth, stone, plaster, lime and cement	0.70
HS-26	Ores, slag and ash	0.02
HS-27	Mineral fuels, oils, distillation products, etc.	0.26

Source: UN Comtrade database

In chemicals and chemical-based industries shown in Table 6.3 below. For HS-34 (Soaps, lubricants, waxes, candles, modelling pastes), intra-industry trade is extremely high (0.96).

Table 6.3: Grubel-Lloyd Index for India and Australia in 2020 – Products of Chemical or Allied Industries (Chapters 28-40)

ITC-HS Chapter	Commodity Name	Grubel Lloyd Index
HS-28	Inorganic chemicals, precious metal compound, isotopes	0.11
HS-29	Organic chemicals	0.26
HS-30	Pharmaceutical products	0.08
HS-31	Fertilizers	0.10
HS-32	Tanning, dyeing extracts, tannins, derivs, pigments etc.	0.46
HS-33	Essential oils, perfumes, cosmetics, toileteries	0.25
HS-34	Soaps, lubricants, waxes, candles, modelling pastes	0.80
HS-35	Albuminoids, modified starches, glues, enzymes	0.54
HS-36	Explosives, pyrotechnics, matches, pyrophorics, etc.	0.00
HS-37	Photographic or cinematographic goods	0.12
HS-38	Miscellaneous chemical products	0.19
HS-39	Plastics and articles thereof	0.51
HS-40	Rubber and articles thereof	0.18

Source: UN Comtrade database

Table 6.4 shows below, the intra-industry trade is low except for Chapter-41(Raw hides and skins (other than furskins) and leather) which has a high degree of the IIT, with value 0.84 and Chapter-48 (Paper & paperboard, articles of pulp, paper and board) which has a high degree of IIT, with value 0.87.

Table 6.4: Grubel-Lloyd Index for India and Australia in 2020 – Leather, Wood and Paper (Chapters 41-49)

ITC-HS Chapter	Commodity Name	Grubel Lloyd Index
HS-41	Raw hides and skins (other than furskins) and leather	0.84
HS-42	Articles of leather, animal gut, harness, travel goods	0.00
HS-43	Furskins and artificial fur, manufactures thereof	0.00
HS-44	Wood and articles of wood, wood charcoal	0.22
HS-45	Cork and articles of cork	0.00
HS-46	Manufactures of plaiting material, basketwork, etc..	0.00
HS-47	Pulp of wood, fibrous cellulosic material, waste etc.	0.00
HS-48	Paper & paperboard, articles of pulp, paper and board	0.87
HS-49	Printed books, newspapers, pictures etc.	0.25

Source: UN Comtrade database

The group comprising textiles and clothing, shown in Table 6.5, the intra industry trade is low except for Chapter-52(Cotton) which has a high degree of intra industry trade, with value 0.98.

Table 6.5: Grubel-Lloyd Index for India and Australia in 2020 – Textiles, Textile Articles, Footwear and Headgear (Chapters 50-65)

ITC-HS Chapter	Commodity Name	Grubel Lloyd Index
HS-50	Silk	0.00
HS-51	Wool, animal hair, horsehair yarn and fabric thereof	0.05
HS-52	Cotton	0.98
HS-53	Vegetable textile fibres nes, paper yarn, woven fabric	0.01
HS-54	Manmade filaments	0.08
HS-55	Manmade staple fibres	0.01
HS-56	Wadding, felt, nonwovens, yarns, twine, cordage, etc.	0.24
HS-57	Carpets and other textile floor coverings	0.00
HS-58	Special woven or tufted fabric, lace, tapestry etc.	0.14
HS-59	Impregnated, coated or laminated textile fabric	0.30
HS-60	Knitted or crocheted fabric	0.57
HS-61	Articles of apparel, accessories, knit or crochet	0.00
HS-62	Articles of apparel, accessories, not knit or crochet	0.00
HS-63	Other made textile articles, sets, worn clothing etc.	0.04
HS-64	Footwear, gaiters and the like, parts thereof	0.02
HS-65	Headgear and parts thereof	0.01

Source: UN Comtrade database

For the assorted group in Table 6.6, in case of HS-71 (‘Natural, cultured pearls; precious, semi-precious stones; precious metals, metals clad with precious metal, and articles thereof; imitation jewellery; coin’), intra-industry trade is very high (0.85).

Table 6.6: Grubel-Lloyd Index for India and Australia in 2020 – Assorted Group of Items
(Chapters 66-71)

ITC-HS Chapter	Commodity Name	Grubel Lloyd Index
HS-66	Umbrellas, walking-sticks, seat-sticks, whips, etc.	0.00
HS-67	Bird skin, feathers, artificial flowers, human hair	0.00
HS-68	Stone, plaster, cement, asbestos, mica, etc. articles	0.02
HS-69	Ceramic products	0.06
HS-70	Glass and glassware	0.23
HS-71	Pearls, precious stones, metals, coins, etc.	0.85

Source: UN Comtrade database

The group comprising Base Metals and Articles of Base Metals, shown in Table 6.7, shows low index values too, IIT values range from 0.00 to 0.64)

Table 6.7: Grubel-Lloyd Index for India and Australia in 2020 – Base Metals and Articles of Base Metals
(Chapters 72-83)

ITC-HS Chapter	Commodity Name	Grubel Lloyd Index
HS-72	Iron and steel	0.64
HS-73	Articles of iron or steel	0.07
HS-74	Copper and articles thereof	0.52
HS-75	Nickel and articles thereof	0.03
HS-76	Aluminium and articles thereof	0.43
HS-78	Lead and articles thereof	0.02
HS-79	Zinc and articles thereof	0.13
HS-80	Tin and articles thereof	0.00
HS-81	Other base metals, cermets, articles thereof	0.12
HS-82	Tools, implements, cutlery, etc. of base metal	0.03
HS-83	Miscellaneous articles of base metal	0.17

Source: UN Comtrade database

The last group, half of which are high-end manufactures, show varying values of the Grubel-Lloyd Index. In particular, HS-86('Railway, tramway locomotives, rolling stock, equipment') and HS-90 ('Optical, photo, technical, medical, etc. apparatus') have high intra-industry trade (index value > 0.7). Table 6.8 shows the index values for chapters 84 to 99.

Table 6.8: Grubel-Lloyd Index for India and Australia in 2020 – High-End Manufactured Products, Furniture, Sports Goods and Works of Art (Chapters 84-99)

ITC-HS Chapter	Commodity Name	Grubel Lloyd Index
HS-84	Nuclear reactors, boilers, machinery, etc.	0.36

HS-85	Electrical, electronic equipment	0.28
HS-86	Railway, tramway locomotives, rolling stock, equipment	0.98
HS-87	Vehicles other than railway, tramway	0.05
HS-88	Aircraft, spacecraft, and parts thereof	0.17
HS-89	Ships, boats and other floating structures	0.02
HS-90	Optical, photo, technical, medical, etc. apparatus	0.84
HS-91	Clocks and watches and parts thereof	0.09
HS-92	Musical instruments, parts and accessories	0.00
HS-93	Arms and ammunition, parts and accessories thereof	0.29
HS-94	Furniture, lighting, signs, prefabricated buildings	0.03
HS-95	Toys, games, sports requisites	0.12
HS-96	Miscellaneous manufactured articles	0.07
HS-97	Works of art, collectors pieces and antiques	0.08
HS-98	Project Goods; some special uses	
HS-99	Commodities not elsewhere specified	0.05

Source: UN Comtrade database

7. Export Similarity

The similarity in the export baskets of two countries, i.e. similarities in the shares of different commodities in the total exports of two countries, is measured by the Export Similarity Index. It is calculated by taking the percentage shares of each commodity (here ITC-HS six digit level commodities have been taken) in both the countries, taking the minimum of the two, and then summing up these minima over all the commodities. The index values vary from 0 to 100, with higher values implying greater export similarity between the countries and thus greater export competition between the two countries.

Table 7.1 shows the values of this index for India and several other countries.

Table 7.1: Export Similarity Index – India and a few countries

	2016	2017	2018	2019	2020
India-USA	32.00	31.74	31.91	32.89	32.53
India-China	27.52	26.97	28.06	30.16	28.80
India- AUSTRALIA	23.56	0.00	24.65	27.23	25.63
India-Hong Kong	17.60	16.44	15.91	17.69	15.71
India-Singapore	24.01	28.04	30.80	30.94	26.61
India-UK	31.94	31.44	31.00	32.89	32.27
India-Germany	29.61	29.88	30.61	32.11	33.10
India-Netherlands	34.58	34.45	35.01	37.77	35.80
India-Malaysia	23.22	23.23	23.63	24.09	23.08
India-Saudi Arabia	10.46	0.00	7.35	4.44	9.47
India-Japan	23.54	23.87	23.62	24.43	24.01

Source: UN Comtrade database

Table 7.2 below shows that Australia's Export Similarity Index values with other countries such as China, Hong Kong, Japan, Malaysia, Singapore, UK and USA.

	2016	2017	2018	2019	2020
Australia-China	10.24	9.42	9.14	9.16	9.41

Australia-Hong Kong	7.31	6.80	6.81	6.59	6.76
Australia-Japan	15.12	13.90	15.99	16.15	16.70
Australia-Malaysia	18.51	17.84	13.16	12.11	10.80
Australia-Singapore	16.54	17.75	19.51	18.65	19.24
Australia-UK	24.89	23.75	26.55	23.39	22.58
Australia-USA	21.98	21.13	27.85	26.37	23.21

Source: UN Comtrade database

From the above table, the average ESI values are computed between Australia and the seven countries, are given as under:

Australia-UK	24.23
Australia-USA	24.11
Australia-Singapore	18.34
Australia-Japan	15.57
Australia-Malaysia	14.49
Australia-China	9.47
Australia-Hong Kong	6.85

ESI between Australia and UK is the highest among the seven countries, implying that these two countries are the closest competitors in the world market for exports in the group of seven countries.

VI Resources

- Oracle Business Intelligence Application, DGCIS
- UN Comtrade Database
- Encyclopædia Britannica, <https://www.britannica.com/place/Australia>
- 2020 ARTICLE IV CONSULTATION for Australia -PRESS RELEASE;STAFF REPORT (IMF Country Report No. 21/255)
- World Trade Organization (WTO) Trade Policy Reviews: Australia
- Human Development Report 2020

VII Appendix

A. Data on Country Profile

Table A: Country Profile — Australia
Country Profile : Australia

	1990	2000	2010	2020
World view				
Population, total (millions)	17.07	19.15	22.03	25.69
Population growth (annual %)	1.5	1.2	1.6	1.3
Surface area (sq. km) (thousands)	7,741.20	7,741.20	7,741.20	7,741.20
Population density (people per sq. km of land area)	2.2	2.5	2.9	3.3
Poverty headcount ratio at national poverty lines (% of population)	..	..	..	..
Poverty headcount ratio at \$1.90 a day (2011 PPP) (% of population)	0.7	0.7	0.3	0.5
GNI, Atlas method (current US\$) (billions)	295.76	404.72	1,028.73	1,379.11
GNI per capita, Atlas method (current US\$)	17,330	21,130	46,690	53,680
GNI, PPP (current international \$) (billions)	285.96	489.99	833.03	1,341.88
GNI per capita, PPP (current international \$)	16,760	25,580	37,810	52,230
People				
Income share held by lowest 20%	7.3	7.4	7.3	7.3
Life expectancy at birth, total (years)	77	79	82	83
Fertility rate, total (births per woman)	1.9	1.8	1.9	1.6
Adolescent fertility rate (births per 1,000 women ages 15-19)	21	18	14	11
Contraceptive prevalence, any method (% of married women ages 15-49)	..	..	62	..
Births attended by skilled health staff (% of total)	100	99	99	97
Mortality rate, under-5 (per 1,000 live births)	9	6	5	4
Prevalence of underweight, weight for age (% of children under 5)	..	..	0.2	..
Immunization, measles (% of children ages 12-23 months)	86	91	94	95
Primary completion rate, total (% of relevant age group)	..	..	..	..
School enrollment, primary (% gross)	106.4	100.7	105.6	99.7
School enrollment, secondary (% gross)	134	153	..	141
School enrollment, primary and secondary (gross), gender parity index (GPI)	1	1	..	1
Prevalence of HIV, total (% of population ages 15-49)	0.1	0.1	0.1	0.1
Environment				
Forest area (sq. km) (thousands)	1,338.80	1,318.10	1,295.50	1,340.10
Terrestrial and marine protected areas (% of total territorial area)	..	..	..	30.4
Annual freshwater withdrawals, total (% of internal resources)	..	4.2	3.1	3.2
Urban population growth (annual %)	1.4	1	1.7	1.4
Energy use (kg of oil equivalent per capita)	5,062	5,644	5,793	..
CO2 emissions (metric tons per capita)	15.45	17.69	17.58	15.48
Electric power consumption (kWh per capita)	8,527	10,194	10,727	..
Economy				
GDP (current US\$) (billions)	311.33	415.58	1,147.59	1,327.84
GDP growth (annual %)	3.6	3.9	2.2	0
Inflation, GDP deflator (annual %)	6.1	2.6	1.2	1.8
Agriculture, forestry, and fishing, value added (% of GDP)	4	3	2	2
Industry (including construction), value added (% of GDP)	29	25	25	25

Exports of goods and services (% of GDP)	15	19	20	24
Imports of goods and services (% of GDP)	17	22	21	20
Gross capital formation (% of GDP)	29	26	27	22
Revenue, excluding grants (% of GDP)	24.4	25.9	23.3	26.1
Net lending (+) / net borrowing (-) (% of GDP)	1.7	2	-4	-0.2
States and markets				
Time required to start a business (days)	..	3	3	2
Domestic credit provided by financial sector (% of GDP)	..	..	..	..
Tax revenue (% of GDP)	22.4	23.1	20.5	23.4
Military expenditure (% of GDP)	2.1	1.8	1.9	2.1
Mobile cellular subscriptions (per 100 people)	1.1	45.1	101.6	107.7
Individuals using the Internet (% of population)	0.6	46.8	76	89.6
High-technology exports (% of manufactured exports)	..	..	17	21
Statistical Capacity Score (Overall Average) (scale 0 - 100)	..	..	..	..
Global links				
Merchandise trade (% of GDP)	26	33	36	35
Net barter terms of trade index (2000 = 100)	..	100	179	194
External debt stocks, total (DOD, current US\$) (millions)	..	..	..	..
Total debt service (% of exports of goods, services and primary income)	..	..	..	..
Net migration (thousands)	351	589	989	791
Personal remittances, received (current US\$) (millions)	2,370	518	1,864	1,191
Foreign direct investment, net inflows (BoP, current US\$) (millions)	8,458	14,893	35,211	19,639
Net official development assistance received (current US\$) (millions)	..	..	..	..

Source: World Development Indicators database

Figures in blue refer to periods other than those specified.

Data from database: World Development Indicators

Last Updated: 04/27/2022

B. Commodities requiring product-specific export-promotion policies

Commodity Code (6- digit)	Commodity Code Description
100630	SEMI/WHOLLY MILED RICE W/N POLISHED/GLAZED
110812	STARCH OF MAIZE (CORN)
120991	VEGETABLE SEEDS USED FOR SOWING
200799	OTHR
200811	GROUND NUTS , PRPD/PRSVD
251320	EMERY, NATRL CORUNDUM, NATRL GARNET AND OTHR NATRL ABRASIVES CRUDE/IN IRREGULAR PIECES
293090	OTHER ORGANO-SULPHUR COMPOUNDS
300450	OTHER MEDICAMENTS CONTAINING VITAMINS OR OTHER PRODUCTS OF HEADING 2936 :
300660	CHMCL CONTRACEPTIVE PRPNS BASED ON HORMONES/SPERMISIDES
321290	OTHR PIGMNTS DYS AND CLRNG MATR
340213	NON-IONIC W/N FOR RTL SALE
340219	OTHR ORNGC SRFCE-ACTV AGNTS W/N FOR RTL SL
380892	FUNGICIDES:
380899	OTHER:
381190	OTHER PREPARED ADDITIVES ANTI-CORRSIVE PRPNS AND OTHR PRPD ADDITVS
400941	TUBES.PIPES AND HOSES OF VULCNSD RUBR REINFORCED/OTHRWSE COMBINED WTH OTHR MATERIALS WITHOUT FITTINGS
401290	OTHER SOLID/CUSHION TYRES, TYRE TREADS AND TYRE FLAPS OF RUBBER
482010	REGISTRS ACCT/NOTE/ORDR/RECPT BOOKS LETR/ MEMO PADS DIARIS AND SMLR ARTCLS OF PAPR
570241	OTHR CRPTS AND FLOOR CVRNGS OF WOOL/FINE ANIMAL HAIR OF PILE CNSTRCTN,MADE UP
610990	T-SHIRT ETC OF OTHER TEXTILE MATERIALS
620342	TROUSERS BIB AND BRACE OVERALLS BREECHES AND SHORTS OF COTTON FOR MEN'S AND BOYS'
620530	MEN'S OR BOYS' SHIRTS OF MAN-MADE FIBRES
620590	SHIRTS OF OTHER TEXTILE MATERIALS
621490	SHWLS,SCRVS ETC OF OTHER TXTL MATERIALS
630399	OTHER CURTAINS OF OTHR TXTL MATERIALS
681099	OTHER ARTCLS OF CEMENT/CONCRETE ETC
690220	REFRATORY BRCKS BLOCKS ETC CONTNG BY WT> 50% OF ALUMINA,SILICA/OF MIXTURE OF THESE
701090	OTHR ARTCLS FOR CNVYNCE/PACKING OF GOODS
701790	OTHR LBRTRY/HYGNC/PHRMCTCL GLSSWARE
701990	OTHER GLASS FIBRES AND ARTICLES THEREOF
711311	ARTCLS OF JEWELLERY AND PRTS THEREOF OF SLVR W/N PLTD/CLD WTH OTHR PRCS MTL
730690	OTHER TUBES,PIPES ETC.OF IRON OR STEEL
730792	THRDED ELBWS,BNDS AND SLEVS OF OTHR IRN/STL
731589	OTHER CHAIN(EXCL ARTICULTD CHAIN)
731600	ANCHORS,GRAPNELS AND ITS PARTS OF IRN OR STL
731819	OTHER THREADED ARTICLES
731822	OTHER WASHERS
761510	TABLE, KITCHEN AND HOUSEHOLD ARTICLES AND PARTS POT SCOURERS AND SCOURING OR POLISHING PADS, GLOVES
820310	FILES,RASPS AND SMRL TOOLS
820411	HND-OPRTED SPANERS AND WRENCHS NON-ADJUSTBLE

841280	OTHER ENGINES AND MOTORS NES
841340	CONCRETE PUMPS
841370	OTHER CENTRIFUGAL PUMPS:
841391	PARTS OF PUMPS
843280	OTHER MACHINERY :
846190	OTHER MACHINE TOOLS OF HDG NO 8461
847689	OTHER AUTOMATIC GOODS VENDING MACHINES INCL MONEY CHANGING MACHINES
848110	PRESSURE-REDUCING VALVES
848220	TAPERED ROLLED BEARINGS,INCLUDING CONE AND TAPERED ROLLER ASSEMBLIES
848280	OTHER, INCLUDING COMBINED BALL OR ROLLER BEARINGS
848330	BEARING HOUSINGS,NOT INCORPORATING BALL OR ROLLER BEARINGS;PLAIN SHAFT BEARINGS
848340	GEARS AND GEARING,EXCL TOOTHED WHEELS,TRNSMSN ELMNTS PRSNTD SEPRPLY;BALL SCRWS;GEAR BOXSAND SPEED CHNGRS,INCL TORQUE CNVRTRS
850161	AC GENERTRS (ALTERNATORS) OF AN OUTPUT NOT EXCEEDING 75KVA
850440	STATIC CONVERTERS
852359	OTHER
853540	LIGHTNING ARRESTERS,VOLTAGE LIMITERS AND SURGE SUPPRESSORS
870899	OTR PRSANDACCSSRS OF VHCLS OF HDG 8701-8705
871310	INVALID CARRIAGES NT MCHNCLY PRPLD
871499	OTHR PRSANDACCSSRS OF BICYCLESAND OTHR CYCLES
901580	OTHER INSTRUMENTS AND APPLIANCES:
901811	ELECTRO-CARDIOGRAPHS
940550	NON-ELECTRCLS LAMPS AND LIGHTING FITTINGS
960810	BALL POINT PENS

Source: DGCIS-Kolkata Database

C. Commodities requiring market-specific export-promotion policies

Commodity Code (6- digit)	Commodity Code Description
100630	SEMI/WHOLLY MILED RICE W/N POLISHED/GLAZED
100821	MILLET : SEED
110812	STARCH OF MAIZE (CORN)
120242	GROUND-NUT, NOT ROASTED OR OTHERWISE COOKED, WHETHER OR NOT SHELLED OR BROKEN-IN SHELLED WHETHER OR NOT BROKEN
120770	MELON SEEDS:
120991	VEGETABLE SEEDS USED FOR SOWING
120999	OTHR SEEDS,FRUIT AND SPORES USED FOR SOWING
151550	SESAME OIL AND ITS FRACTIONS
152110	VEGETABLE WAXES
160420	OTHER PREPARED OR PRESERVED FISH
160521	SHRIMPS AND PRAWNSNOT IN AIRTIGHT CONTAINER
160529	OTHER SHRIMPS AND PRAWNS (NOT IN AIRTIGHT CONTAINER)
170191	SUGR REFIND CONTNG FLVRNG OR CLRNG MATTER
190531	SWEET BISCUITS
200799	OTHR
200811	GROUND NUTS , PRPD/PRSVD
210111	EXTRCTS ESSNCS AND CNCNTRTS OF COFFE
210120	EXTRCTS ESSNCS AND CNCNTRTS,OF TEA/MATE AND PRPNS WTH A BASIS OF THESE EXTRCTS,ESSNCS OR CONCENTRATES OR WTH A BASIS OF TE
230400	OIL-CAKE AND OTHR SOLID RESIDUE W/N GRND/IN PLLTS FORM OBTND FRM SOYA-BEAN OIL EXTRCTN
240290	CIGARS CHEROOTS CIGARILLOS AND CIGARETTES OF TOBACCO SUBSTITUTES
250300	SULPHUR OF ALL KNDS OTHR THN SUBLIMED SULPHUR PCPTD SULPHUR AND COLLOIDAL SULPHUR
250610	QUARTZ
250620	QUARTZITE :
251320	EMERY, NATRL CORUNDUM, NATRL GARNET AND OTHR NATRL ABRASIVES CRUDE/IN IRREGULAR PIECES
251400	SLATE W/N ROUGHLY TRMMD/MERELY CUT BY SAWING/OTHRWSE INTO BLKS/SLBS OF A RCTNGLR AND SQ SHAPE
252100	LIMESTNE FLUX; LIMESTONE AND OTHR CALCAREOUSSTONE USED FOR MANUFACTURE OF LIME/CEMENT
280200	SULPHUR SUBLIMD/PRECPTATED COLLDL SULPHUR
281119	OTHER INORGANIC ACIDS
281910	CHROMIUM TRIOXIDE
282110	IRON OXIDES AND HYDROXIDES
282751	BROMIDES OF SODIUM OR OF POTASSIUM
282990	OTHER PERCHLORITES,BROMATES,PERBROMATES IODATES AND PERIODATES
283210	SODIUM SULPHITE
283329	OTHER SULPHATES
283525	CALCIUM HYDROGENORTHO PHOSPHATE ("DICALCIUM PHOSPHAT
283529	OTHER PHOSPHATES
284020	OTHER BORATES :
290544	D-GLUCITOL (SORBITOL)
290613	STEROLS AND INOSITOLS
291512	SALTS OF FORMIC ACID
291540	MONO-DI/TRCHLRACTC ACD,THR SLTS AND ESTRS
291734	OTHER ESTERS OF ORTHOPHTHALIC ACID
291813	SALTS AND ESTERS OF TARTARIC ACID

291815	SALTS AND ESTERS OF CITRIC ACID
291816	GLUCONIC ACID ITS SALTS AND ESTERS
291899	OTHER
292111	MTHYLAMINE DI-OR TRIMTHYL AMINE AND THR SLTS
292143	TOLUIDINES AND THEIR DRVTVS SLTS THEREOF
292390	OTHER QUATERNARY AMMONIUM SALTS AND HYDROXDELECITHINS AND OTHR PHOSPHOAMINOLIPIDS
292800	ORGNC DRVTVS OF HYDRAZINE/OF HYDROXYLAMINE
293020	THIOCARBAMATES AND DITHIOCARBAMATES
293090	OTHER ORGANO-SULPHUR COMPOUNDS
293729	OTHR STEROIDAL HORMONS THR DRVTVS AND STRCTL ANLGES
300450	OTHER MEDICAMENTS CONTAINING VITAMINS OR OTHER PRODUCTS OF HEADING 2936 :
300660	CHMCL CONTRACEPTIVE PRPNS BASED ON HORMONES/SPERMISIDES
320620	PIGMNTS AND PRPTNS BASD ON CHROM COMPND
321290	OTHR PIGMNTS DYS AND CLRNG MATR
321390	OTHER (OTHER THAN IN SETS)
330119	ESSENTIAL OILS OF OTHR CITRUS FRUITS
330129	OTHER ESSENTIAL OILS OTHER THAN THOSE OF CITRUS FRUIT
340213	NON-IONIC W/N FOR RTL SALE
340219	OTHR ORNGC SRFCE-ACTV AGNTS W/N FOR RTL SL
350300	OTHER ALBUMINATES AND OTHER ALBUMIN DRVTVS GELATIN DRVTVS;ISINGLASS; OTHER GLUES OF ANML ORIGIN,EXCL CASEIN GLUES OF HD
360200	PRPD EXPLOSIVES OTHR THN PROPELLENT PWDRS
360300	SAFETY FUSES DETONATING FUSES PERCUSSION OR DETONATING CAPS;IGNITERS;ELEC DETONATRS
360500	MTCHS EXCL PYRTCHNC ARTCLS OF HDNG NO 3604
380893	HERBICIDES, ANTI-SPROUTING PRODUCTS AND PLANT-GROWTH REGULATED:
380899	OTHER:
381190	OTHER PREPARED ADDITIVES ANTI-CORRSIVE PRPNS AND OTHR PRPD ADDITVS
381300	PRPNS AND CHARGES FOR FIRE EXTINGUISHERS CHARGED FIRE-EXTINGUISHING GRENADES
392190	OTHR PLTS,SHTS,FILM FOIL,STRIP ETC,NONCLLR
392329	SACKS AND BAGS (INCL CONES)OF OTHR PLASTICS
392390	OTHR ARTCLS FOR THE CNVYNCE/PCKNG OF GOODS
400300	RECLAIMED RUBR IN PRMRY FORMS OR IN PLATES SHEETS OR STRIP
400941	TUBES.PIPES AND HOSES OF VULCNSD RUBR REINFORCED/OTHRWSE COMBINED WTH OTHR MATERIALS WITHOUT FITTINGS
401012	(CNVYR BLT/BLTNG)RENFRCD WTH TXTL MTRLS
401039	OTHR TRANSMISSION BLTS/BELTING OF VULCANISED RUBBER
401120	NEW PNMTC TYRES USED ON BUSES/LORRIES
401140	NEW PNMTC TYRES OF A KIND USED ON MTRCYCLS
401290	OTHER SOLID/CUSHION TYRES,TYRE TREADS AND TYRE FLAPS OF RUBBER
401410	SHEATH CONTRACEPTIVES
401511	SURGICLE GLOVES,MITTENS AND MITTS
401694	BOAT/DOCK FENDERS W/N INFLATABLE
420239	ARTCL OF OTHR MATRL CARIED IN PCKT/HNDBG
430390	OTHER ARTICLES OF FURSKIN
440831	VNR SHETS,MRNTI(DRK RD,LGHT RD AND BAKAU)
441400	WOODEN FRAMES FOR PAINTINGS PHOTOGRAPHS MIRRORS OR SIMILAR OBJECTS
481019	PAPR/PAPRBORD OTHER THAN ROLLS/SHEETS

482010	REGISTRS ACCT/NOTE/ORDR/RECPT BOOKS LETR/ MEMO PADS DIARIS AND SMLR ARTCLS OF PAPR
482090	OTHR ARTCLS OF STATIONARY OF PAPR/PAPRBORD
482390	OTHRARTCLS OF PAPR PULP PAPRBORD CELULOSE WADNG OR WEBS OF CEL FIBRS
490110	PRINTD BOOKS ETC IN SINGL SHEET W/N FOLDED
490300	CHILDREN'S PICTURE DRAWNG OR COLORNG BOOKS
510910	YARN OF WOOL/OF FINE ANML HAIR CONTNG>=85%BY WT OF WOOL,PUT UP FOR RETAIL SALE
520420	COTTON SWNG THREAD PUT UP FOR RETAIL SALE
520822	COTN FABRICS CONTNG >=85% BY WT OF COTTON BLEACHD PLAIN WEAVE WEIGNG > 100 G/M2
521212	OTHR BLCHD WOVEN FBRCs WGHNG <=200 G/M2
530919	OTHR FLAX WOVN FABRCs CONTNG FLAX>=85%
531090	OTHR WOVN FABRCs(EXCL UNBLECHD)OF JUTE ETC
540234	OF POLYPROPYLENE
540269	OTHER YARN,MULTIPLE(FOLDED)OR CABLED
540720	WOVEN FABRICS OBTAINED FROM STRIP/THE LIKE
540773	OTHR WOVN FABRCs OF YRNS OF DIFRNT COLORS CNTNG 85% OR MORE BY WT OF SYNTHTC FILMNTS
551130	YARN OF ARTIFICIAL STAPLE FIBRES PUT UP FOR RETAIL SALE
560790	OTHER TWINE,CORDAGE,ROPE AND CABLES
570241	OTHR CRPTS AND FLOOR CVRNGS OF WOOL/FINE ANIMAL HAIR OF PILE CNSTRCTN,MADE UP
570291	CRPTS AND OTHR TXTL FLR CVRNGS OF WOOL/FINE ANML HAIR,NT OF PILE CONSTRCTN,MADE UP
570310	CARPETS AND OTHER TEXTILE FLOOR COVERINGS OF WOOL/FINE ANIMAL HAIR TUFTD,W/N MADE UP
580900	WVN FBRCs OF MTL THRD AND MTLSD YARN OF HDG 5605 OF A KND USED IN APPAREL AS FRNSHG FBRCs/FOR SMLR PURPOSES N.E.S./INCLU
590310	FBRCs,IMPRGNTD,COATD,CVRD/LAMNTD WITH PVC
590700	TXTL FBRCs OTHRWSE IMPRGNTD,COATED/CVRD; PAINTED CANVAS BEING THEATRICAL SCENERY STUDIO BACK-CLOTHS OR THE LIKE
590800	TXTL WICKS,WOVEN,PLAITED/KNITTED,FOR LAMPSTOVES,LIGHERS,CANDLES ETC,INCANDESCENT GAS MANTLES ETC,W/N IMPREGNATED
610333	JACKETS AND BLAZERS OF SYNTHETIC FIBRES
610342	TROUSERS,SHORTS ETC OF COTTON
610419	SUITS OF OTHER TEXTILE MATERIALS
610439	JACKETS OF OTHER TEXTILE MATERIALS
610442	DRESSES OF COTTON
610449	DRESSES OF OTHER TEXTILE MATERIALS
610459	SKRTS AND DIVIDED SKRTS OF OTHER TXTL MATRLS
610510	MEN'S/BOYS' SHIRTS OF COTTON
610520	MEN'S/BOYS' SHIRTS OF MAN-MADE FIBRES
610711	UNDERPANTS AND BRIEFS OF COTTON
610721	NIGHTSHIRTS AND PYJAMAS OF COTTON
610722	NIGHTSHIRTS AND PYJAMAS OF MANMADE FIBRES
610799	BATHROBS ETC.OF OTHER TEXTILE MATERIALS
610821	BRIEFS AND PANTIES OF COTTON
610829	BRIEFS AND PANTIES OF OTHER TEXTLE MATRLS
610899	NEGLIGES BATHROBES ETC OF OTHR TXTL MATRLS
610990	T-SHIRT ETC OF OTHER TEXTILE MATERIALS
611120	BABIES'GARMENTS ETC OF COTTON
611130	BABIES'GARMENTS ETC OF SYNTHIC FBRS

611599	OTHER HOSIERY OF OTHER TEXTILE MATERIALS
620342	TROUSERS BIB AND BRACE OVERALLS BREECHES AND SHORTS OF COTTON FOR MEN'S AND BOYS'
620349	TROUSERS BIB AND BRACE OVERALLS,BREECHES AND SHORTS OF OTHER TXTL MATERIALS-MEN'S/BOYS'
620412	SUITS OF COTTON
620443	DRESSES OF SYNTHETIC FIBRES
620444	DRESSES OF ARTIFICIAL FIBRES
620520	MEN'S OR BOYS' SHIRTS OF COTTON
620530	MEN'S OR BOYS' SHIRTS OF MAN-MADE FIBRES
620590	SHIRTS OF OTHER TEXTILE MATERIALS
620640	BLOUSES,SHIRTS ETC OF MAN-MADE FIBRES
620690	BLOUSES,SHIRTS ETC OF OTHR TXTL MATERIALS
620719	UNDRPNT AND BRIEFS OF OTHR TXTL MATERIALS
620721	NIGHTSHIRTS AND PYJAMAS OF COTTON
620722	NIGHTSHIRTS AND PYJMS OF MAN-MADE FIBRES
620799	OTHER SMLR GARMENTS OF OTHER TXTL MATRLS
620811	SLIPS AND PETTICOATS OF MAN-MADE FIBRES
620821	NIGHTDRESSES AND PYJAMAS OF COTTON
620822	NIGHTDRESSES AND PYJAMAS OF MAN-MADE FIBRES
620829	NIGHTDRESSES AND PYJAMAS OF OTHR TXTL MATRLS
620892	OTHER SMLR GARMENTS OF MAN-MADE FIBRES
620899	OTHER GARMENTS OF OTHER TEXTILE MATERIALS
621112	SWIMWEAR FOR WOMEN'S OR GIRLS'
621139	OTHR GRMNTS OF OTHR TXTL MTRLS FR MNS/BOYS
621143	OTHER GARMENTS OF MAN-MADE FIBRES
621490	SHWLS,SCRVS ETC OF OTHER TXTL MATERIALS
621520	TIES,BOW TIES AND CRAVATS OF MAN-MADE FIBRES
630130	BLANKETS(OTHER THAN ELECTRIC BLANKETS) AND TRAVELLING RUGS,OF COTTON
630231	OTHER BED LINEN OF COTTON
630259	OTHR TABLE LINEN OF OTHER TEXTILE MATERIAL
630399	OTHER CURTAINS OF OTHR TXTL MATERIALS
630419	OTHER BEDSPREADS
630510	SACKS AND BAGS FOR PACKING,MADE OF JUTE OR OF OTHR TXTL BAST FBRES OF HDG NO.5303
631090	OTHR RAGS,SCRP TWNE,CORDGE,ROPE ETC
640319	FTWEAR WTH OUTR SOLES OF RUBR,PLSTCS, WITH UPPERS OF LEATHER
640340	OTHER FOOTWEAR, METAL TOE-CAP
650100	HAT-FORMS-HAT-BODIES AND HOODS OF FELT NTHR BLCKD TO SHAPE NOR WTH MADE BRIMS PLATEAUXAND MANCHONS(INCL SLIT MANCHONS) OF FE
680221	SIMPLY CUT/SAWN MARBLE TRAVERTINE AND ALABASTER WITH A FLAT OR EVEN SURFACE
680229	OTR SMPLY CUT/SWN STNE WTH A FLT EVN SRFCE
680299	OTHER STONE
680300	WRKD SLATE AND ARTCLS OF SLATE/AGLMRTD SLATE
680410	MLSTNS AND GRNDSTNS FR MLNG,GRNDNG/PULPNG
680430	HAND SHARPENING OR POLISHING STONES
681019	OTHER (TILES FLAGSTONES ETC)
681099	OTHER ARTCLS OF CEMENT/CONCRETE ETC
690220	REFRATORY BRCKS BLOCKS ETC CONTNG BY WT> 50% OF ALUMINA,SILICA/OF MIXTURE OF THESE

690290	OTHR REFRACTROY BRICKS,BLOCKS,TILES ETC
701090	OTHR ARTCLES FOR CNVYNCE/PACKING OF GOODS
701790	OTHR LBRTRY/HYGNC/PHRMCTCL GLSSWARE
701990	OTHER GLASS FIBRES AND ARTICLES THEREOF
710110	NATURAL PEARLS
711311	ARTCLS OF JEWELLERY AND PRTS THEREOF OF SLVR W/N PLTD/CLD WTH OTHR PRCS MTL
711790	OTHER IMITATION JEWELLERY
721491	BARS AND RODS OF RECTANGULAR (OTHER THAN SQUARE) CROSS-SECTION OF IRON/NON ALOY STL
721699	OTHER :
730230	SWITCH BLADES,CROSSING FROGS,POINT RODS AND OTHER CROSSING PIECES
730690	OTHER TUBES,PIPES ETC.OF IRON OR STEEL
730711	CAST FITTINGS OF NON-MALLEABLE CAST IRON
730719	OTHER CAST FITTINGS
730792	THRDED ELBWS,BNDS AND SLEVS OF OTHR IRN/STL
730840	PROPS AND SMLR EQUIPMENT FOR SCAFFOLDING, SHUTTERING OR PIT-PROPPING
731589	OTHER CHAIN(EXCL ARTICULTD CHAIN)
731590	OTHER PARTS
731600	ANCHORS,GRAPNELS AND ITS PARTS OF IRN OR STL
731819	OTHER THREADED ARTICLES
731822	OTHER WASHERS
732391	OTHR HOUSHLD ARTCLS OF CAST IRN NT ENAMELD
732591	GRINDNG BALLS AND SMLR ARTCLS FOR MILLS OF MALLEABLE CAST IRON
741121	TUBES AND PIPES OF COPR-ZNC BASE ALOYS(BRAS)
741820	SANITARY WARE AND PARTS THEREOF
761490	OTHR STRNDED WIRE,CBLS PLAITD BNDS ETC
761510	TABLE, KITCHEN AND HOUSEHOLD ARTICLES AND PARTS POT SCOURERS AND SCOURING OR POLISHING PADS, GLOVES
810199	OTHER ARTICLES OF TUNGSTEN AND ITS ALLOYS
820190	OTHER HAND TOOLS OF A KIND USED IN AGRICULTURE, HORTICULTURE OR FORESTRY
820310	FILES,RASPS AND SMRL TOOLS
820411	HND-OPRTED SPANERS AND WRENCHS NON-ADJUSTBLE
820520	HAMMERS AND SLEDGE HAMMERS
820530	PLANES,CHISELS,GAUGES AND SMLR CUTTING TOOLSFOR WORKING WOOD
821191	TABLES KNIVS HAVING FIXD BLADES
830610	BELLS GONGS AND THE LIKE
830630	PHOTOGRPH,PICTURE/SMLR FRAMES,MIRORS
840290	PARTS OF STM/VAPR GNRTNG BOILRS
840890	OTHER ENGINES:
841280	OTHER ENGINES AND MOTORS NES
841290	PARTS OF ENGINES AND MOTORS
841311	PUMPS FOR DSPNSNG FUEL/LUBRICANTS,OF THE TYPE USD IN FILLNG STATIONS/IN GARAGES
841340	CONCRETE PUMPS
841370	OTHER CENTRIFUGAL PUMPS:
841391	PARTS OF PUMPS
841440	AIR CMPRSRS MOUNTD ON WHELD CHASIS FR TWNG
842320	SCLS FR CNTNUOS WEIGHNG OF GOODS ON CNVEYR
842389	OTHER WEIGHING MACHINERY

842519	OTHER PULLEY TACKLE AND HOIST
842549	OTHER JACKS AND HOISTS,FOR RAISING VEHICLES
842940	TAMPING MACHINES AND ROAD ROLLERS
842959	OTHER MCHNCL SHOVL,EXCVTRS AND SHOVL LOADRS
843041	SELF-PROPELLED BORING/SINKING MACHINERY
843280	OTHER MACHINERY :
843290	PRTS OF AGRCLTRL AND HORTCULTRL MACHINERY
843790	PARTS OF MACHNS FR CLNG,SRTNG GRADNG ETC
846190	OTHER MACHINE TOOLS OF HDG NO 8461
846890	PARTS OF ARTICLES OF HEADING 8468
847410	SRTNG,SCREENING,SEPARATINGANDWASHING MCHNS
847420	CRUSHING/GRINDING MACHINES
847431	CONCRETE OR MORTAR MIXERS
847629	OTHERS AUTOMATIC BEVERAGE-VENDING MACHINES
847689	OTHER AUTOMATIC GOODSVENDING MACHINES INCL MONEY CHANGING MACHINES
847979	OTHER PASSENGER BOARDING BRIDGES EXCL THOSE USED IN AIRCRAFT
848110	PRESSURE-REDUCING VALVES
848220	TAPERED ROLLED BEARINGS,INCLUDING CONE AND TAPERED ROLLER ASSEMBLIES
848280	OTHER, INCLUDING COMBINED BALL OR ROLLER BEARINGS
848330	BEARING HOUSUNGS,NOT INCORPORATING BALL OR ROLLER BEARINGS;PLAIN SHAFT BEARINGS
848340	GEARS AND GEARNG,EXCL TOOTHD WHEELS,TRNSMSN ELMNTS PRSNTD SEPRTRY;BALL SCRWS;GEAR BOXSAND SPEED CHNGRS,INCL TORQUE CNVRTRS
850161	AC GENERTRS (ALTERNATORS) OF AN OUTPUT NOT EXCEEDING 75KVA
850164	A.C.GENRTRS(ALTRNTRS)OF AN OUTPUT EXCEEDING 750 KVA
850231	OTHR GENERATING SETS; WIND POWERED
850440	STATIC CONVERTERS
850720	OTHER LEAD-ACID ACCUMULATORS
852359	OTHER
853210	FXD CPCTRS DSGND FR USE IN 50/60 HZ CRCTS HVNG A REACTIVE PWR HNDLNG CAPACITY OF NT LESS THN 0.5 KVAR(PWR CAPACITORS)
853521	AUTMTC CIRCUIT BRKRS FR A VLTG OF <72.5KV
853529	AUTMTC CIRCUIT BRKRS FR A VLTG OF >=72.5KV
853540	LIGHTNING ARRESTERS,VOLTAGE LIMITERS AND SURGE SUPPRESSORS
853720	BORDS ETC FOR A VOLTAGE>1000 VLTS
854511	ELECTRODES OF A KIND USED FOR FURNACES
854620	ELECTRCL INSULATORS OF CERAMICS
870130	TRACK-LAYING TRACTORS
870321	VHCL WTH SPRK-IGNTN INTRNL CMBSTN RCPRTNGPISTON ENGENE OF CYLNDR CPCTY<=1000CC
870322	VEHICLES WITH SPARK-IGNITION INTERNAL COMBUSTION RECIPROCATING PISTON ENGINE OF CYLINDR CAPACITY>1000CC BT NT>1500CC
870410	DUMPERS DESIGNED FR OFF-HIGHWAY USE
870899	OTR PRTSANDACSSRS OF VHCLS OF HDG 8701-8705
871130	MOTOR CYCL ETC WTH RCPRTNG INTRNL CMBSTN PSTN ENGN OF CYLNDR CAP>250 C TO 500 CC
871310	INVALID CARRIAGES NT MCHNCLY PRPLD
871499	OTHR PRTSANDACSSRS OF BICYCLESAND OTHR CYCLES
900150	SPECTACLE LENSES OF OTHR MATERIALS
901580	OTHER INSTRUMENTS AND APPLIANCES:
901811	ELECTRO-CARDIOGRAPHS

920810	MUSICAL BOXES
920992	PARTS AND ACCESSORIES FOR THE MUSICAL INSTRUMENTS OF HEADNG NO.9202
930599	PRTS OF HEADING 9302 AND 9304
930690	OTHER(BOMBS,GRENADES ETC)
940389	OTHER
940430	SLEEPING BAGS
940550	NON-ELECTRCLS LAMPS AND LIGHTING FITTINGS
950640	ARTICLES AND EQUIPMENT FOR TABLE-TENNIS
960810	BALL POINT PENS
960910	PNCL AND CRYNS WTH LEADS ENCLSD IN RGD SHTH

Source: DGCIS-Kolkata Database

D. Trade Indicators

1. Revealed Comparative Advantage Index (RCA): RCA for a commodity exported from a country means the importance of this commodity in the export trade of the country in comparison with the importance of the commodity in world exports. Mathematically,

$$RCA_{ij} = (x_{ij}/X_{it}) / (x_{wj}/X_{wt})$$

where x_{ij} = country i's exports of commodity j

X_{it} = country i's total exports

x_{wj} = world exports of commodity j

X_{wt} = total world exports.

When $RCA_{ij} > 1$, i.e. when j's weight in i's exports (x_{ij}/X_{it}) is more than j's weight in world exports (x_{wj}/X_{wt}), country i is said to have a revealed comparative advantage in commodity j.

There is a revealed comparative disadvantage if $RCA_{ij} < 1$. When $RCA_{ij} = 1$, there is neither comparative advantage or disadvantage.

By studying the RCA for a commodity exported from a country over time, it can be seen whether the country in question is gaining in comparative advantage regarding a particular commodity. If RCA is falling, the reasons require investigation. (x_{ij}/X_{it}) may have risen less or fallen more than proportionately than (x_{wj}/X_{wt}).

2. One way of checking the reasons for a fall in RCA for a particular commodity is seeing which markets are responsible for this fall. This can be seen from another, slightly different, indicator called Export Specialization Index (ESI).

$$ESI = (x_{ij}/X_{it}) / (m_{kj}/M_{kt})$$

Where, m_{kj} = import of commodity j to market k

M_{kt} = world imports of commodity k.

(m_{kj}/M_{kt}) gives the weight of j in market k. So, if RCA_{ij} is seen to fall, then it can be found out for which markets ESI has fallen. Special attention may then be given to those markets regarding the commodity in question.

3. Like RCA, the revealed comparative import intensity (RCII) can also be measured.

$$RCII = (m_{ij}/M_{it}) / (m_{wj}/M_{wt})$$

Where m_{ij} = country i's imports of commodity j

M_{it} = country i's total imports

m_{wj} = world imports of commodity j

M_{wt} = total world imports.

This gives an idea whether the proportion of imports of any commodity is more than expected, in terms of the share of that commodity in world imports.

4. Bilateral trade between countries is an important area of trade policy in that bilateral trade agreements are signed to increase trade. However, some points require to be examined before entering into these agreements. Firstly, it is necessary to see whether there is trade complementarity between the two countries. That is, whether the exports of one country match with the imports of the other, and vice versa. Naturally, when trade complementarity is high between two countries, it is beneficial to enter into a trade agreement. If a partner country does not import what India generally exports, there is little point in entering into a trade agreement with that country. The Trade Complementarity Index (TCI) is given as follows:

$$TCI = 1 - \sum (|mik - xij| / 2)$$

Where mik = share of commodity i in the imports of market k
 xij = share of commodity i in the exports of country j.

It is evident that TCI can have values between 0 and 1. When these shares, are mik and xij are close to each other, (i.e. when trade complementarity increases) TCI is close to 1. As their difference increases, TCI falls.

TCIW = TCI between a country and the World.

RTCI (Relative Trade Complementarity Index) between country k and country j = (TCI between country k and country j) / (TCI between country k and the world)

RTCI gives a measure of the complementarity between two countries as compared to the complementarity between the first country and the world.

5. But another fact may be checked while proceeding to enter into a trade agreement. The trade between the two countries may already be quite high. This can be measured by the Export Intensity Index (EII).

$$TII = (xij/Xit)/(xwj/Xwt)$$

Where xij = country i's exports to country j

Xit = country i's exports to the world

xwj = world exports to country j

Xwt = total world exports.

This essentially measures the relative importance of country j in country I's export trade, in comparison with country j's importance as world export destination. EII < 1 or >1 implies less than or more than expected bilateral trade, respectively. If EII is already high, there is little scope of further increasing bilateral trade between i and j. But if it is low, and if TCI is high, bilateral trade can very well be increased through trade agreements.

6. A related indicator is the Export Similarity Index (XSI), which helps us identify a country's competitors.

$$XSI = \sum [\min (Xij, Xik) * 100]$$

Where Xij = share of commodity i in exports of country j

Xik = share of commodity i in exports of country k

XSI can vary between 0 and 100. It will be seen that when Xij = Xik for all i's, XSI = 100,

Which means complete export similarity between countries j and k. As Xij and Xik start to differ, XSI falls.

Countries exporting the same commodities are competitors in the world market, and export strategies, taking in to account such competition, have to be designed accordingly.

7. It is necessary to know whether the exports of a country are concentrated in a few products. A high concentration, while enabling a country to reap the benefits of specialization and economies of scale, also exposes a country to the risks arising from the vicissitudes of global trade. The Hirschman Index (HI), used by UNCTAD, is a handy measure for monitoring export concentration.

$$HI = \sqrt{[\sum Sq(xi/Xt)]}$$

Where xi is the country's exports of commodity i

Xt is the country's total exports.

HI ranges from (1/n) to 1. The higher the value of HI, the higher the concentration of exports.

8. Intraindustry trade is of importance as it can increase and expand markets. The standard indicator is the Index of Intraindustry Trade (IIT).

$$IIT_{jk} = 1 - [\sum |X_{ijk} - M_{ijk}| / (X_{ijk} + M_{ijk})]$$

Where X_{ijk} = exports of products of industry i from country j to country k

M_{ijk} = imports of products of industry i from country k to country j .

IIT can take values from 1 (extremely high intra-industry trade, exports equalling imports) to 0 (no interindustry trade at all).
